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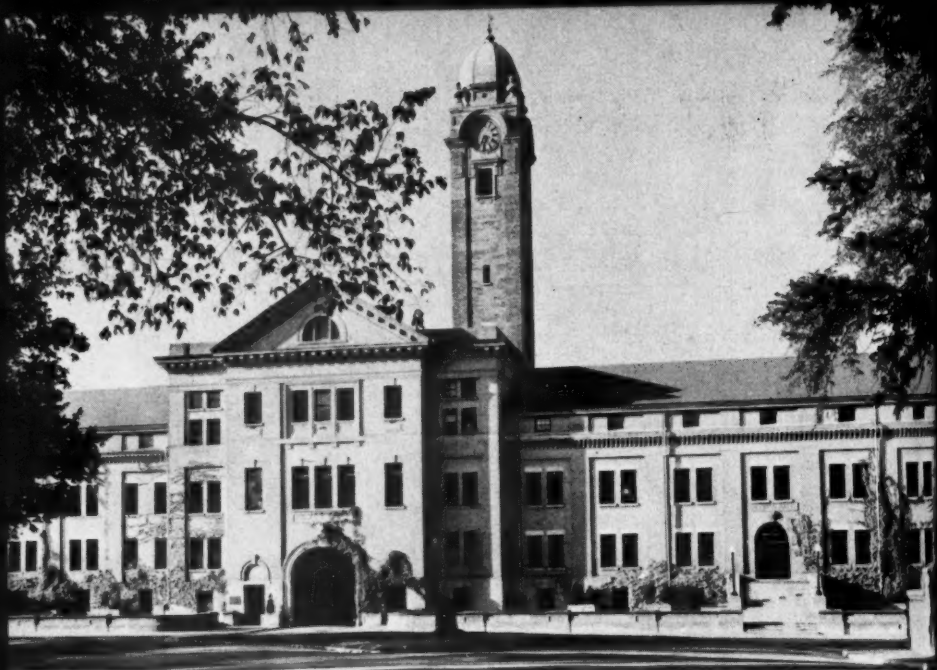


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LEADERSHIP OF THE CZECH SATELLITE ARMY

Lieutenant Colonel Irving Heymont, *Infantry*
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The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.

SINCE the conclusion of World War II, the Soviet Union has tirelessly labored to ensure complete dominance of the armies of her European satellites. Despite the fluctuations and periodic readjustments in the political situations of Hungary, Poland, Romania, Czechoslovakia, Albania, and Bulgaria the Soviets have never faltered in pursuing their goal of developing in their satellite countries professionally competent military leaders who are also loyal to the Soviet system.

The satellite armies of today are not makeshift colonial armies to be taken over *in toto* by the Soviet Army at the politically propitious time. It is now quite apparent that the Soviet goal is the development of strong, but separate, national forces that are allied with, but not part of, the Soviet Army. It goes without saying that these satellite armies are also completely subordinate to the Soviets.

The pattern of development among the European satellite armies is essentially

the same. National differences and local political considerations have, of course, dictated variations within each satellite country. These variations are essentially minor in nature and have not materially affected the fundamentally common pattern. The root of the pattern is the determination of the answer to the problem of developing military skill along with dogmatic political loyalty. In a free nation the basic loyalty of its military leaders is taken for granted. Military leaders are chosen without consideration of the individual's adherence to any political party. Professional competence is the criterion, not political orthodoxy. Differences in political opinions can be, and are, tolerated.

A revolutionary society predicated on fanatical dogma or rigid adherence to the Party Line—and the Soviet Union is such a society—must secure or develop competent military leaders who adhere to every detail of the prescribed creed. Until such military leadership is ensured the revolutionary state cannot rest secure, let alone expand. Even the most competent military leaders must be disposed of if there is any doubt of their political reliability. Orthodoxy must be held paramount to ability.

The desired goal of military competence

The pattern of development among European satellite armies is essentially the same and is based on determining the answer to the problem of developing military skill in conjunction with dogmatic political loyalty

and political orthodoxy cannot, however, be achieved by a governmental decree. Military competence comes only from years of training and experience. Attainment of the ultimate desired combination can be achieved only by compromise with reality. Part of this reality stems from the fact that all of the European satellites and their prewar armies, except for Czechoslovakia, had long histories of enmity toward the Soviet Union.

The Coalition Phase

The situation facing the USSR in rebuilding the satellite armies at the end of World War II was in many respects similar to the situation faced in building the Soviet Army after the revolution that followed the overthrow of the czar. In selecting the leader for their new army, the Soviets drew on two principal sources: the trained prerevolution regular officers and the leaders who arose during the revolutionary struggle. The latter were usually dynamic individuals, politically reliable, but lacking in the training and skills required to build a modern army. Those regulars of the old regime who were retained had civil war records of loyalty to the Bolshevik regime. As a group these old regulars survived for about 20 years or until the great purges of 1937-38 when they were liquidated to make way for the

new generation of professionals trained completely under the marxists. Only a few of the civil war heroes survived the frequent purges and the last big group fell victim along with the old regulars in the great purge of the 1937-38 period. The only civil war heroes to achieve military prominence in World War II were General Votutin, who was killed in 1944, and Marshal Konev.

In rebuilding the armies of their European satellites, the Soviet Union could draw military leadership from the ranks of the former non-Communist regular armies and from the ranks of the irregular forces which they had formed or supported.

Many of the old regular officer corps were excluded because of complete political unreliability or excluded themselves by their rejection of the new regime. General Anders, commander of the Polish forces that fought under the British, is representative of the latter group. The officers retained were, for the most part, those who had been in the Soviet Union during World War II as either refugees or prisoners of war and had subsequently fought the Germans under Soviet aegis. In addition, a significant number of former regular officers of ethnic minorities were retained. For example, many officers of Ukrainian and Hungarian extraction were retained in the Romanian Army and officers with Jewish and Slovak background were retained in the Hungarian Army. Apparently the Soviets were utilizing, initially at least, individuals who lacked deep-seated loyalties to the old society. The ex-regular officers who were retained did not last as long as the comparable group in the Soviet Army. For the most part they were purged or discarded well before a decade had passed.

From the ranks of the former irregulars, and particularly the native Communists, the Soviets drew personnel for the key assignments during the initial forma-

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tion of the European satellite armed forces. These key assignments were generally in the army political departments, the state security units, and the border forces. Virtually the first step in the organization of the new satellite armies was the establishment of an army political department in accordance with the well-known Soviet pattern.

This composition of the European satellite forces lasted until about 1948. This period can be characterized as one of interim coalition designed to last until the Soviet-dominated local Communists consolidated political control of the state apparatus.

Initial Period

This initial period had a number of interesting features. Limited in size by the peace treaties, the armies of Hungary, Romania, and Bulgaria were drastically reduced. Gaining control of the selection process, the local Communists were able to eliminate known potential dissident elements. In those countries without treaty limitations, such as Poland and Czechoslovakia, the Russian Communists ensured that officers they did not favor were eliminated or assigned to inconsequential posts. The presence of the Soviet occupation forces undoubtedly lent weight to the recommendations of the local Communists.

Frontier and special security troops patterned after the comparable Soviet Ministry of Internal Affairs (MVD) forces were rapidly developed during this period; essentially they were the Communist militia or shock troops. In fact, in the defeated countries these police troops even exceeded in numbers the regular armies which were limited by the peace treaties.

Consolidation of Power

By 1947-48 the Soviets were in position to proceed to the next stage. In a series of coups the local Communists completely took over the political basis of power; the non-Communist elements of the coali-

tion governments either fled or were eliminated. King Michael of Romania abdicated in 1947 and fled. In February 1948 Czechoslovakia was taken and Jan Masaryk, the Premier, died under mysterious circumstances. In Hungary, Prime Minister Laza Dinnyes and his predecessor Ferenc Nagy were forced to flee and the Communists assumed complete control in 1948.

With the political power secure in their hands, the Communists tightened their grip on the armed forces. In a previous effort to maintain a façade of coalition, the Communist had appointed non-Communist figureheads as ministers of defense; these men were now replaced by well-known Communists. In Romania it was Emil Badnaris; in Hungary, M. Farkas; in Poland, the Soviet officer of Polish extraction, Marshal Rokossovski; and finally, in 1950 in Czechoslovakia it was Alexel Cepicka.

Within the ranks of the armed forces a great many of the old high-ranking regular officers who were retained in 1945 were ruthlessly eliminated. Concurrent with this purge many former low-ranking officers were promoted to higher grades and positions of responsibility while others who were not considered politically reliable were eliminated. Slowly, but surely, the Soviets were approaching their goal.

With political control now complete, the Soviets considered that the satellite armies were ready to expand their capabilities beyond just internal security and defense. They initiated a rapid buildup not only in numbers but also in equipment and training. The satellites were sold Soviet arms and equipment to include heavy items such as tanks and jet aircraft. Military training, including officer training, was intensified. A detailed and comprehensive reserve program was established. These measures were also used by the Soviets to counter the Western alliances and NATO forces taking shape under the im-

petus of the Marshall Plan and the Truman Doctrine.

Under the new Communist ministers of defense, a new purge took place in Czechoslovakia during the period 1949-52. With the major non-Communist elements eliminated, the Communists in effect were purging themselves. The successful defection of Tito made a house cleaning virtually mandatory. One of the two major groups of victims consisted of the old loyal Communists who had proved themselves to be incompetent. With the expansion of the satellite armies they were now hindrances and had to be eliminated.

The other group, which was the larger, was primarily Communists; they were both in and out of the armed forces and were suspected of being potential dissidents. These potential dissidents and those suspected of forming factions and cliques that might develop into threats to the native Politburo were ruthlessly eliminated. The famous trials of Slansky in Czechoslovakia and Rajk in Hungary, which shocked the Western World, were part of this process. General Palffy, virtually Chief of Staff of the Hungarian Army, was hanged as an aftermath of the Rajk trial. Many other high satellite army figures were also purged. The net result of this new purge, as far as the armed forces were concerned, was the elimination of obstacles to the new expansion program and the further assurance of unswerving loyalty to the prescribed dogma.

The Czechoslovakian Army

A study of the development of the army of one satellite nation, Czechoslovakia, illustrates the general trends just discussed and possible future developments.

In May 1945 the Czechoslovakian government-in-exile returned to Prague from London via Moscow. Czechoslovakia had been liberated by the United States Third Army in the west and by the Soviet Army in the east. Native resistance forces, pri-

marily in Slovakia, had been of great aid in the liberation, particularly during the last year of the war. The newly formed Czechoslovakian provisional government was created by agreement of the Czechoslovakian London government and the Soviet Union. Two-thirds of the provisional government ministers were non-Communists. The Minister of National Defense was General Ludvik Svoboda. While nominally not a Communist, General Svoboda, as will be seen later, was a willing tool of the Soviet Union. In theory, the Communist Party was only one party in the coalition. This coalition government had the task of establishing an army. In selecting the leadership for this new army, it could draw from the ranks of the resistance forces and those Czech forces that had fought under British and Soviet sponsorship.

A brief discussion of the history of the Czechoslovakian Army from its creation after World War I until the Allied victory in 1945 is necessary for an understanding of the post-World War II developments.

The officer cadre of the new Czechoslovakian Army formed in 1919 was drawn primarily from former Austro-Hungarian Army officers, former officers of the Czech Legion in Russia, and former officers of the Czech Legions in France and Italy. During the first 10 years of the Czech Army's existence, the top leadership was held by the former Austro-Hungarian officers. These officers had attained good training and experience in the Austro-Hungarian Army and their services were particularly valuable to the new army. As a group they were older than the members of the new army and had been professional soldiers all of their adult lives. For the most part they came from the highest social strata. The majority were born in Bohemia, the most advanced part of the nation.

By 1930 this group had been mostly

retired because of age and the former Legionnaires had taken over the top leadership of the army. Since the birth of the Czechoslovakian Army, they had received sufficient theoretical military education and advancement to qualify for higher ranks and responsibilities.

These former Legionnaires had been originally drafted into the Austro-Hungarian Army from civilian occupations. Recruited from prisoner of war camps in Russia during World War I, they had organized the Czechoslovakian Legion to fight against the Austro-Hungarian monarchy in order to advance the nationalist Czechoslovak goals. When the Bolsheviks seized power and the czarist regime collapsed, these organized Czech units engaged in bitter struggles with the Communists, fighting their way across Russia and Siberia to Vladivostok where they were met and evacuated by an American expeditionary force under General William Graves. As a result of these campaigns the Legionnaires required experience and *esprit* that made them the leading elements in the Czechoslovakian Army when the old Austro-Hungarian professionals left the scene.

These former Legionnaires were pro-Western in their orientation. The majority had received their advanced theoretical military education at the Czechoslovakian War College which had been established by a French Military Mission. Many of them had studied at the Ecole de Guerre of France.

The London Army Source

With the German partition of Czechoslovakia in 1938 and final absorption in 1939 a good part of the officer corps and leadership of the Czechoslovakian Army fled to the east or the west where they took up arms again against the Germans. Those who fled west soon came to be known as the London Army and those who fled East became known as the Moscow Army.

Elements of both these forces were to furnish the largest portion of the leadership of the postwar Czechoslovakian Army.

The Czechoslovakian refugees arriving in France found a considerable number of compatriots who had been in France for some years. From these two elements a Czechoslovakian division was organized. With the fall of France in 1940, about half of this unit was evacuated to Great Britain but the proportion of officers in this group was so high that many had to accept demotion to enlisted ranks. Before the fall of France there had been a constant flow of Czechs into France via an escape route through the Balkans and the Near East. With France under Nazi domination the Czech officers cut off in the Near East formed a unit which actively fought with the British in that theater. At the end of the North African Campaign the bulk of these Czechoslovakian forces was transferred to Great Britain. Some of the officers, however, fought in the ranks of the Czechoslovakian units in Russia.

By the end of World War II the Czechoslovakian elements fighting under British sponsorship and with allegiance to their government-in-exile in London, had acquitted themselves well, despite their relatively small numbers. The Czech armored brigade had played a prominent part in the reduction of the German pocket at Dunkerque in 1944. The five Czech air squadrons serving with the Royal Air Force had earned well-deserved distinction.

The top leaders of these forces were primarily professional officers who had started their careers in the Czech Legions of World War I and had continued in the Czechoslovakian Army. Most of them had been trained and educated under French influence between the world wars and had well-rounded peacetime careers of staff and command assignments. Based on their World War II records, it would only seem

natural that they would furnish the leadership to rebuild the Czechoslovakian Army after the restoration of their nation.

The Moscow Army Source

In the spring of 1939, following the German occupation in March, about 2,500 officers and men of the Czechoslovakian Army fled to Poland. Their efforts to organize a Czech Legion were severely hampered by the Poles who were fearful of antagonizing Hitler. By the time Poland was invaded, about half of this group had infiltrated through the Balkans to France. The remaining elements were overrun and interned as a unit by the Soviet Union in the occupation of eastern Poland. By the spring of 1941, and at the request of the Czechoslovakian government-in-exile in London, they had all been transferred to the Near East except for a small detachment. This small detachment of about 100 remained behind in the USSR at the request of Lieutenant Colonel Ludvik Svoboda to be the nucleus of a possible future Czechoslovakian unit. This same Lieutenant Colonel Svoboda later became the first Minister of National Defense after the liberation of Czechoslovakia.

Czech Legion

After the invasion of the Soviet Union in June 1941 the London government-in-exile concurred in the formation of Czechoslovakian units to be formed in the USSR under the control of the Soviets. Svoboda was given the mission of organizing and training this new unit by the Soviets. The unit initially consisted of Czechoslovakian refugees and Czechoslovakian residents of the Soviet Union. The new Czech Legion entered combat in early 1943.

By 1944 this unit had grown in numbers and the need for experienced Czechoslovakian officers was pressing and several hundred enlisted men were sent to Soviet

officer candidate schools. After much negotiation the London government transferred about 100 officers from the Czechoslovakian units under their control.

While the Soviet advance continued west, the Czechoslovakian unit grew in numbers as Slovak soldiers impressed by the Germans deserted in ever-increasing numbers and were in turn inducted into the Czechoslovakian units. When the borders of Czechoslovakia were reached the Slovak resistance forces were absorbed and a draft of Czech citizens was instituted. The resistance forces were a welcome addition as the Czechoslovakian unit had suffered heavy casualties in the fighting for the Carpathian passes. By the end of the war the Moscow supported Czechoslovakian force had reached a strength of about 80,000 but was still short of experienced officer personnel. Supported by the victorious Soviet Army, it was widely touted as the nucleus of the new Czechoslovakian Army to be.

With the exception of a few months, the now General Svoboda had been in command of the Czechoslovakian forces in the Soviet Union; he had been promoted to general grade by the London government-in-exile at the request of the Soviets. Although not prominent in the peacetime Czechoslovakian Army, he had been pushed forward by the Soviets ostensibly as a non-Communist. The leadership of the Czechoslovakian forces in the USSR was in sharp contrast to the leadership of the London Army. Instead of being a cohesive group with common background and experiences, the leadership of the Moscow Army was an expedient rapidly gathered together under wartime stress without depth of experience or unity.

The Resistance Forces Sources

Czechoslovakian anti-German resistance centered primarily in the Slovakia area. Attempting to divide and rule by capitalizing on minority antagonisms, the

Germans had set up a separate Slovak state complete with its own army which consisted of Slovak elements of the old Czechoslovakian Army. The leadership of this Slovak Army came from younger officers who were elevated to general grade. The Slovak Army contribution to the German war effort was negligible for the division that served on the Russian front had practically lost all effectiveness by 1943 because of widespread desertions to the Soviets and two other divisions were used for occupation duties.

Partisan activity in Slovakia reached a peak in 1944. The partisan units consisted of Czechs and escaped Allied prisoners of war, as well as Slovaks. Considerable aid in supplies and equipment, and even some officer personnel, were received from the Soviet Union. By the summer of 1944 partisan activity had grown to such an extent that the puppet Slovak government headed by Monsignor Joset Tiso had lost all effective control with large areas and many important lines of communications under the control of the partisans. In response to an appeal by Monsignor Tiso, the Germans decided to occupy Slovakia and restore order.

Armed Uprising

During this period Slovak leaders of all political parties and officers of the Slovak Army had been plotting and preparing an armed uprising. The London government-in-exile approved the plans and designated General Rudolf Viest of the London Ministry of Defense as the commander. In view of the imminent German occupation, the date of the uprising was advanced. On 29 August 1944 the rebellion broke out. The headquarters of the Slovak became the headquarters of the First Czechoslovak Army in Slovakia.

The advance of the German units into central and western Slovakia was resisted by the partisans and revolting Slovak

troops. In 2 months, however, the rebellion was crushed and General Viest and other Slovak leaders were captured and executed. The partisans and remnants of the rebelling Slovak Army units retired to the mountains where they continued their struggle against the Germans. Many of the rebels merely melted into the civilian populace.

There were many causes for this defeat beside the strength of the Germans. Paying allegiance to the London government, the elements of the Slovak Army that rose in revolt were led by Slovak officers acting on behalf of the London government-in-exile. Many of the partisan units were led by Communists—and even Soviet officers—whose first loyalty was to the interests of the Soviet Union and not necessarily for the restoration of the old republic. This lack of unity of interest certainly did not aid in making for a successful rebellion. Another major factor in the defeat was the lack of all-out support by either the Soviet Union or the Western Allies. The London government made every effort to rally support from all possible sources, but the Soviet Union took a very dim view of Western intervention in Slovakia. Some Soviet support was given to the rebellion but not on a scale to ensure success. Many Czechs later believed the Soviet failure to support the revolt adequately was a means to ensure that a triumphant non-Communist resistance movement did not exist when they took over.

The Slovak officers who had prepared and led the uprising were young professional officers of the old Czechoslovakian Army. They had acquitted themselves well and certainly were material for the rebuilding of the new Czechoslovakian Army.

In other parts of Czechoslovakia there also existed relatively strong underground movements even if not of the strength that flourished in the rugged area of Slovakia. The underground in Prague and

Bohemia-Moravia did come out into the open during the last days of the war to assist in the liberation of Prague and other areas.

The Postwar Coalition

The first postwar Czechoslovakian government was formed in April 1945 at Koscice in the Czechoslovakian area just liberated by the Soviet Army. There, on 18 April 1945, President Benes signed a decree appointing the top leadership of the new army. General Serjoj Ingr, the Minister of National Defense of the London government-in-exile, was appointed Commander of the Armed Forces of Czechoslovakia. General A. Liska, former commander of the Czech armored brigade that had fought with distinction under the British, was designated as the new chief of staff. These appointments immediately met with strong Soviet disapproval. Bowing to Soviet pressure in an obvious effort to maintain harmony, President Benes revoked the appointments and designated General Ludvik Svoboda, the commander of the Soviet-sponsored Czech forces, as the new commander in chief. The position of chief of staff went to General B. Bocek who had also fought in the Moscow Army.

Few Generals Retained

Generals Ingr and Liska were retained but in relatively minor posts. Not all of the returning London Army generals were retained, even in minor posts. For example, General Bedrich Neumann had been working in the London government Defense Ministry since 1944 on the eventual rebuilding of the new Czechoslovakian Army. Although obviously being groomed for a higher position, he was completely unacceptable to the Soviets in any capacity because of his prominent anti-Communist record. Most of the returning London officers were permitted to retain military positions for a time.

In a study made under the auspices of

the Hoover Institute of Stanford University, Dr. Ithiel de Sola Pool pointed out that of the 16 general officers who were active in the London Army and also afterward served in general grade in the Czechoslovakian Army, 7 were in positions of lesser importance than they had previously held; 3 general officers continued in positions at comparable levels of responsibility; and 4 held positions that did not lend themselves to comparison but were certainly not important policymaking positions. Of the 2 general grade officers who were given positions of higher responsibility, 1 had been the London government's military attaché to Moscow during the war. This officer, while not a Communist—and eventually purged—was apparently a known factor to the Soviets. The other officer given increased responsibility had headed the air force of the London government-in-exile until 1943 when he was demoted to be the head of the Czech Red Cross.

During this coalition period the Communists were obviously ensuring that they held the positions where key decisions were made. Although almost all the London officers and elements of the resistance forces were retained during this period, the Communists endeavored to isolate these non-Communists elements and to reduce their authority and prestige.

The new army itself was being formed in accordance with Soviet organizational precepts. Shortly after assuming office as Minister of National Defense, General Svoboda announced that the army in its future development would employ Soviet Army regulations and equipment.

As an instrument of Communist policy and as a means to ensure presence of a loyal force during this transitional coalition period, the Communists rapidly built a National Security Corps under the Ministry of Interior which they controlled. The stage was being set for the next period in the evolution.

1948 Coup and Aftermath

The *coup d'état* of 1948 terminated the coalition phase when the Communists openly seized control of the government and the Army. In the 8 months following this coup, 1,750 army officers were purged and the Czech Military Academy was closed to all but Communists. The desired goal of technically proficient and Communist loyal and trusted army leadership was a step nearer to realization.

However, the Communists were still not in a position to do completely without the services of the technically qualified former career officers. Some were permitted to stay on and others were persuaded to do so—many of them did not realize that their tenure would be of short duration.

In the Hoover Institute study by Dr. de Sola Pool previously mentioned, the careers of about 90 Czech general grade officers who were active at some time during the 10-year period 1941-51 were carefully studied to the extent of available information. Casualties during World War II and the normal attrition of age had reduced this group to 61 who were still active by 1945. Of this group only 51 were professional soldiers, the remaining 10 were Communists who had gained their rank primarily by political activity. Of the 51 professional officers, 7 had served in the Moscow Army, 18 had served in the London Army, 3 had served in the insurgent Slovak Army, and 5 had served in the Czech underground.

Two of the officers had backgrounds of collaboration with the Germans but had been able to obtain positions in the new postwar army. Of the remaining 16 general grade officers, there is little information of their activities during World War II. This is due, in part, to the fact that none of them had prominent careers and that at least 10 of them were relatively junior officers until after the Communists seized power. It is believed that these 16 probably spent the war years either in

Czechoslovakia or in the Soviet-sponsored forces. The present Chief of Staff, General Vaclav Kratchovil, and the present Commander of the Air Force, Lieutenant General Josef Vosahlo, who will be discussed later, are representative of these 16 officers.

Of the entire group of 61 general officers, only 18 had achieved general grade by 1944. Of this number 10 had served with the London government-in-exile. Apparently the greater number of the most experienced officers served in the London Army.

After the coup of 1948, 18 of the 61 general officers were purged or fled. Of these 18 victims, 15 had served in the London Army and the other 3 had served in the underground. The victims had many common characteristics; as a whole they were members of that cohesive group that developed out of the Czech Legion that had fought in the Soviet Union during World War I and then against the Bolsheviks. Between world wars they had been trained under French influence. With Czechoslovakia occupied they had supported the London government, hence the elimination of this group meant the removal of the major pro-Western influence in the leadership of the new Czechoslovakian Army.

Of those who remained with the government after the 1948 coup, 13 more career officers of the group of 61 were eliminated by 1952. These 13 officers were not a cohesive group as were those purged immediately after the coup. This second group of victims was made up of officers who had served in the Moscow Army, in the underground, and the two officers, Generals Drgac and Sirica, who had records of collaboration with the Germans. Among the most prominent of those removed in this second purge was General Bocek who had been pushed forward by the Soviets to be the first chief of staff of the postwar Czechoslovakian Army. He

was arrested and implicated in the Slansky treason trial. It is interesting to note how well the Soviets succeed in persuading people to work for them as long as it suits the Soviet purposes.

How did the 10 Communist generals fare? They too only served when they were useful and were purged when their usefulness was gone. Of the 10 Communist generals, Generals Rejcin, Lastrovicka, Pavel, and Kopold have been purged. Generals Prochazka, Ecer, and Bacilek have been relegated to obscure positions outside of the armed forces.

The Communist generals had been used primarily in the control of the army legal and political indoctrination systems and in the security forces. Except for periods of reorganization, such as in 1950, the Soviets preferred to leave the satellite armed forces in the hands of the technicians. The zenith of power of the Communist generals was reached in 1950 when they were brought in to ensure control during the major reorganization that took place that year. That major reorganization was the elimination of the older professional officers including many who had fought in the Moscow Army.

General Ludvik Svoboda was eliminated in 1950 by being shifted to an inconsequential job with a high-sounding title—Vice Premier and Head of State Office for Physical Education and Sport. The fact that General Svoboda openly joined the Communist Party in 1948 did not ensure his tenure of office.

General Svoboda's successor as Minister of Defense was Alexei Cepicka, the son-in-law of the then Communist head of Czechoslovakia, Klement Gottwald. Cepicka, who was promoted—or better appointed—to general in October 1950, has a long history as an active Communist but no military experience. Recently General Cepicka "resigned" as Minister of Defense and Colonel General Lomsky, a 1936 graduate of the Czech Military Academy, was ap-

pointed as his successor. General Lomsky first achieved prominence as Chief of Staff of the Czech Corps organized in the Soviet Union by General Svoboda.

The chief of the army political department is another Communist general who has survived the purges, General Cenek Hruska. He too has a long history of Communist activity but nothing is known of any specific military background. In 1950 he was a brigadier general and in 1952 was promoted to division general.

The 16 professional officers who gained prominence after the Communist seizure of power have emerged as the top professional leadership of the Czechoslovakian Army. Not much is known about them as they were all of relative junior rank and did not have outstanding records until they were brought into prominence by the Communists. Some of them like Generals Hanus, Michalica, and Sacher are believed to have fought in the Moscow Army. General Rypl, as a major, was a flight commander in a Czech unit with the Royal Air Force. Generals Vegr and Kratochvil were in the underground movement in Czechoslovakia. Generals Ejem, Hanus, Janda, Papousek, Kratochvil, and Tokan are known to have attended the prewar Czechoslovak Staff College.

In 1952, at age 47, General Kratochvil became the Chief of Staff of the Czechoslovakian Army. By branch an artillery officer, he had attended the Czech Military Academy at Hranice and the War College at Prague. After the German occupation he worked in the underground until arrested by the Gestapo in 1941. After liberation he reentered the army. In 1948 it is believed he attended a 2-year course at the Frunze Military Academy in Moscow.

In 1952 General Hanus became the Commander of the Czechoslovakian Air Force. After his death in 1953, of natural causes, he was succeeded by Lieutenant General Josef Vosahlo. Very little is known of

General Vosahlo except that he is believed to be an ardent Communist and is being pushed into prominence.

The sequence of events in the subjugation of the Czechoslovakian Army by the Communists parallels the development of Communist control of the armies of the other European satellite nations. Because Czechoslovakia had no long history of bitter enmity toward the Soviet Union, there has been a distinct tendency toward the greater use of former professional officers than in the other satellites such as in Poland. In reaching the ultimate goal, the Soviets have maintained a continuity of leadership elements from the old army. The balance between the Communists and the professionals in this leadership has fluctuated. However, at all times some degree of professional competence has been maintained without sacrifice of over-all Communist control.

Future and Conclusions

As the ultimate goal still remains unchanged, the future will probably bring continued and intensified emphasis on the training and equipping of the Czech Army along Soviet lines. Concurrently there will

probably also be continued emphasis on the development of young military leaders who are professionally competent and loyal to the regime. Class origin will play a great part in determining eligibility for admission to the Czech Military Academy and for advanced training either at home or in the Soviet Union.

In a few years, perhaps about 1962 or 1963, the Communist educated and trained generation of army officers should be ready to assume large responsibilities. At that time, there will probably be a new purge when the Kratchovils and Vosahlos will be eliminated—their usefulness at an end. However, the Communists have undoubtedly learned well some of the lessons of the great purges of the Soviet Army of 1936-38. This future purge may take a milder form; perhaps it will be even marked by reviews and bestowal of empty honorific sinecures. Violent or mild, it will still be a purge and will mark the emergence of a new type of leadership in the realization of the ultimate Soviet goal of developing in their satellite countries professionally competent military leaders who are also Communist trained and intensely loyal to the Soviet system.

This Communist conspiracy is not to be taken lightly. Its agents operate under the iron discipline of the Soviet Communist Party acting as the self-proclaimed "General Staff of the World Proletariat." The agents themselves, in order to gain a following, pretend to be reformists seeking to eradicate the evils which exist in any society.

None of us want to be maneuvered into the position of defending whatever Communists attack. We do not carry on political warfare against ideas or ideals. But equally we must not be blind to the fact that the international conspiracy I describe has, in 15 years, been primarily responsible for turning what were 15 independent nations into Soviet colonies, and they would if they could duplicate that performance here.

Secretary of State John Foster Dulles

WHENCE AND WHITHER LOGISTICS?

Captain John C. Ten Eyck, *United States Naval Reserve* and
Lieutenant Commander Frederick C. Dyer, *United States Naval Reserve*

The authors of this article are collaborating on a book entitled, Founders of Modern Logistics, which they intend to be a companionpiece to Professor Earle's Makers of Modern Strategy. They would appreciate suggestions or comments from interested persons.

The views expressed in this article are the authors' and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.

THE Navy is the logistics service par excellence. All armed forces are, of course, dependent upon logistic support, but the Navy is and has been in her development intimately related to the development of logistics as a formal segment of the art and science of warfare. As Admiral Mahan showed in so many ways, the means of warfare come from materials garnered and traded by seapower. In turn, seapower develops out of practice of garnering and trading such materials. We could use the word "logistics" in place of "seapower" in the following quotation from Mahan and still make perfect sense:

The noiseless, steady, exhausting pressure with which seapower [logistics] acts, cutting off the resources of the enemy while maintaining its own, supporting war in scenes where it does not appear itself, or appears only in the background . . . is emphasized to the careful reader by the events of all the struggles for power which have belabored this world of men.

At this point we would like to comment

that the history of war indicates that final leadership has gone not to the countries that have invented diabolic weapons (Greek fire; German gas) but to those that have best used their men (Roman discipline) and to those with the best logistics base (British seapower).

What do we mean by "logistics"? By some it is used as a synonym or elegant variation for supply and quartermaster services; by others it is used to justify or disprove some current theory of economic planning. We, however, are interested here in the functions which it represents. In a brief review of its modern use, we draw heavily upon Rear Admiral John D. Hayes' article, "Logistics—The Word," in the September 1954 issue of the *Naval Research Logistics Quarterly*, which stated: "The word, *logistics*, is a United States Navy contribution to the American military language which is now the military language of the free world." Admiral Hayes further states that "logistics received considerable attention in the period before World War I when a growing navy forced attention on coaling stations, maintenance facilities, and service ships for maintaining and supplying the fleet overseas." But that "during the period between World Wars I and II . . . logistics became a second-class subject. . . ." and "the Navy paid dearly in the early days of World War II for this attitude. . . ."

Admiral Mahan used the term logistics in his address on "The Object of the United States Naval War College" in 1888 as follows:

Between strategy and grand tactics comes logically logistics. Strategy decides

where to act; logistics is the art of moving armies; it brings the troops to the point of action and controls questions of supply; grand tactics decides the methods of giving battle. There are obvious differences of condition between armies and fleets that must modify the scope of word logistics, which it yet may be convenient to retain.

In Mahan's day the term logistics was still closely related to its use by Jomini in the sense of "the art of moving armies." (The French words *logis* and *loger* are close in meaning to our English words *lodging* and *to lodge*.) But Mahan saw what was implicit in any term used to describe the functions that come "between strategy and tactics," and he added, as quoted above, to the current definition of *logistics* the prophetic statement that the scope of the word logistics must be modified, but that the word itself, "yet may be convenient to retain." And in a footnote written in 1908 to this passage of his 1888 speech, he added: "The recent (1908) cruise of the Atlantic Fleet to Magdalena Bay, in the Pacific, among other bearings, has been an experimental study in logistics."

It is worth noting that a word will in time take on the meanings of the functions implicit in the areas it must inevitably cover. Conversely, and happily or tragically as the semanticists keep pointing out, terms arrogate to themselves powers

other, or the one emphasized at the expense of the other. Economic power, bases, supporting forces, and reserves must be obtained or defended by sword and gunfire; sword and gunfire must be launched and maintained by economic power, bases, supporting forces, and reserves. In Mahan you do not find the one without the other. This is not so with other writers, and with some modern commentators: the one asks only for sword arms and trigger fingers; the other counts only on factories and roads.

At this time, therefore, we are proposing the following definitions and discussions of logistics-strategy-tactics in order to establish a "middle way," a "common ground," or "generally accepted meaning of the terms." Clear thinking and terminology at this stage may save many annoyingly futile arguments later on.

Tactics—Strategy—Logistics

Military writers have often availed themselves of a triangle to represent the interaction of strategy, tactics, and logistics. In primitive countries tactics (who chases and clubs whom) has the biggest leg of the triangle. Perhaps a few warriors make some strategic maneuverings in the days before a battle; and perhaps a few chiefs make sure their warriors have a day's supply of food and an extra quiver of arrows in the event foraging is difficult. In more advanced countries strat-

The history of war indicates that final leadership has gone not to the countries that have invented diabolic weapons, but to those that have best utilized their men and to those with the greater logistics base

they do not deserve. If we have suffered from a lack of emphasis on the importance of logistics, will we suffer from an eventual overemphasis? Mahan's histories and poems of seapower are also histories and poems of logistic successes; but nowhere in Mahan do you find the one without the

egy and logistics take more and more length along the sides of the triangle. Finally, the means, all the means, of warfare become of paramount importance: atom bombs, chemical and biological weapons, intercontinental ballistic missiles, training and readiness of military forces

—and behind all these the raw materials, the factories, the transportation systems, and the skills and know-how of an advanced technical civilization.

What we are warning against here is the "fallacy of symmetrical thinking" with regard to the triangle of strategy-tactics-logistics. Because an equilateral triangle seems more "perfect" to the eye, there is a powerful subconscious impulse to assume that a perfect balance of effort would mean an equal division among strategy, tactics, and logistics (Figure 1). Such an assumption is absurd, for as we have already indicated, different conditions require different emphasis. However, one underlying fact, so often obscured, threads all narratives of war and national power. This fact is that the nation with the greater logistics base—access to the means of war—wins in the long run provided it is willing to pay the bill for moving these means, and provided it does not make grievous errors in strategy and tactics.

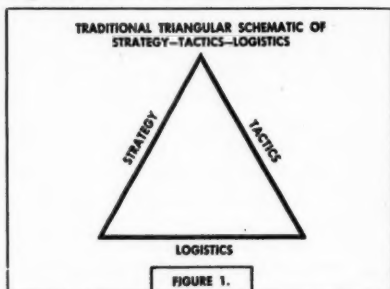
How then can we treat logistics so that

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we give it the proper importance as compared with its brothers, strategy and tactics, without committing the error of symmetrical thinking? Perhaps the difficulties have been caused by the attempt to define these three elements of the art of war separately. Let us put them together as follows:

Strategy is the art and science of planning the use of the means of war.



Tactics is the art and science of using the means of war.¹

Logistics is the art and science of providing the means of war.

Looking at these definitions we see that they are bound together by the phrase common to all three, "the means of war." We can chart their relationship very simply (Figure 2).

It seems obvious that no strategic or tactical plans should be made without first ascertaining the logistics involved; and conversely that no logistics decisions be made without first deciding on the strategic and tactical plans to be followed. Yet, both these absurdities have taken place time after time in recent as well as in ancient history. We all know of the dictators, generals, and admirals who have planned great victories without figuring out how to transport their troops to the

¹"Before hostile armies or fleets are brought into contact (a word which perhaps better than any other indicates the dividing line between tactics and strategy), there are a number of questions to be decided, covering the whole plan of operations throughout the theater of war. . . . All these are strategic questions." Mahan, *The Influence of Sea Power Upon History, 1660-1763*, 25th Edition, p 8

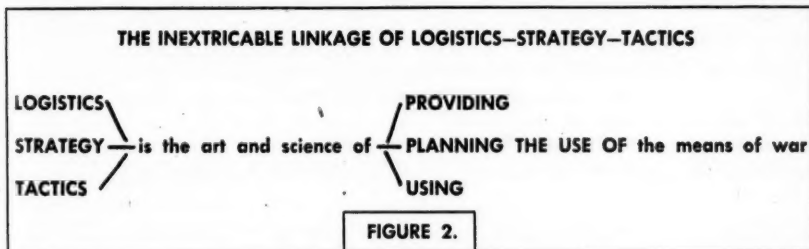
battle scene. If we looked with half an eye we could find more than one nation and more than one service which has stockpiled men, matériels, and munitions with no strategic or tactical use in mind.

Concentrating on Logistics

Now that we have discussed the place of logistics in the triad of strategy-tactics-logistics, let us see what is implicit in our definition of logistics. We have defined it: *Logistics is the art and science of providing the means of war.* It is a science to the degree that it constitutes an organized, systematic body of knowledge, principles, and concepts, theoretic and experimental, which can be tested by other observers and which can be manipulated to provide measurable predictive data. It is an *art* because it is based on and deals with human situa-

concerned the most successful wars may be—and probably have always been—those fought strictly on psychological, economic, political, and diplomatic grounds.

Perhaps we will see better the true import of the term logistics in its most modern usage if we chart the decisions involved at all levels. Figure 3 considers the decisions and consequences of logistic planning at four levels: national, strategic, producer, and tactical. Note that we have eliminated the term "consumer logistics." That term may seem to make a nice parallel with "producer logistics" in current Department of Defense and Department of the Navy directives, but it is too close to the concept of "supply" and it leads us into thinking there is a separation between those who "produce" the means of warfare and those who use them.



tions. *It provides the means of warfare*, and this covers far more than just the manufacture of munitions and the delivery of hot and cold food to soldiers. *Providing* includes the manufacture and transportation of goods, the selection and training of men, and the search and acquisition of raw materials as well as the processes required to accumulate and deliver munitions and supplies to field troops. Similarly the *means* include practices of international trade, morals, and psychological factors, as well as all the bombs, ships, tanks, and aircraft used, or *threatened to be used*, in armed conflict. Also, *warfare* need not always be armed conflict. Where victory, national triumph, and power are

Yes, there is a difference between those who produce *munitions* (factory managers) and those who *burn them* (generals and admirals). But there should be no wide separation among those *who decide what means of warfare will be required and how they will be provided.*

As an example, in World War II the Requirements Committee of the War Production Board allocated steel plate to the Maritime Commission for the construction of merchant ships and to the Navy for the construction of antisubmarine vessels. Was this a strategic decision or a logistics decision?

Surely it was a strategic decision for the proportions in which steel plate was di-

vided between combatant and noncombatant vessels dictated the type of warfare that was fought by the naval commanders when the ships were available. But was this decision strictly strategic? By no means—there was not enough steel plate to go around. The strategic planners asked for more than could be provided. Therefore, the shipbuilding programs had to be kept within the bounds of *feasibility*. (Perhaps “feasible” can be our key word, touchstone, or clue to the presence and extent of “logistics” just as Mahan found in the term “*contact with the enemy*” the distinguishing of tactics? See Footnote 1.)

prophecy of Mahan we have accepted the fact that the term logistics has and will develop in meaning according to the use given to it, and according to the increasing awareness of the importance of the functions it serves to label. But lest it become jargon on the one hand, or on the other hand an imprecise all-things-to-all-men abstraction, we have proposed that it be defined concurrently with its brothers, strategy and tactics, as indicated in Figure 2.

Definitions and categories of thought and activity are important where many men of diverse backgrounds and interests

Logistic Decisions at Different Levels

<i>Policy Levels</i>	<i>Type of Logistics Planning</i>	<i>Type of Decisions</i>	<i>Consequences</i>
National	National	Laws, regulations, taxes, tariffs, and subsidies affecting trade, manufacturing, and civilian skills and attitudes	Availability of men, money and materials, trained manpower
Military or Departmental	Strategic	Weapons and forces to build out of means available	Commitments for bombers, carriers, tanks; pilots, seamen, soldiers, and workers
Industrial	Procedure and Procurement	Where, how, and of what are weapons and supplies to be made	Quantities and qualities of weapons and supplies in accordance with requirements
Distribution	Tactical	Where and how to deliver supplies for concentrations of armed bodies	Support of forces in areas at times required

Figure 3.

What was feasible was certainly a logistics problem. Thus all strategic decisions must be confined to what is logistically practical. Similarly, all tactical problems are interwoven with logistics matters. It is obvious, but often overlooked, that one fights only with what one has.

In this article we have examined the balance of emphasis among strategy, tactics, and logistics. Following the prescient

must work together. Surely, then, before we join in argument about “good” and “bad” logistics—and strategy and tactics—we should agree upon what we mean by those basic terms.

It is our prediction that the meaning of the term logistics will continue to expand until it covers any area wherein national policy and endeavor are concerned with providing the means of warfare.

THE SEASON FOR CHANGE IS HERE

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The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.

IF ONE were to place his ear to the heart beat of the Nation today, some rather peculiar sounds would be heard. Some noises would relate to politics, some squeaks about taxation, and some groans about such an uncontrollable element as the weather. But mixed within the various sounds would be a peculiar one—not a noise of definite nature, but rather a quizzical buzz of doubtful cast. The big question in the mind of the thinking public is "what happens now that we no longer possess a monopoly on the atomic weapon?"

Statements such as "the absolute weapon," "pushbutton warfare is around the corner," "the next war could be won in 30 days," are becoming less popular.

These terms, splashed as headlines in newspapers and periodicals, have lost credence when employed as clinchers in speeches of importance. Many people are suddenly awakening to the fact that two sides, not just one, may now use these terms with a definite degree of proprietorship. Any further logical deduction calls to mind the mythical "gingham dog and the calico cat who ate each other up." Thus some clouds appear on the horizon

that seem to have taken the form of question marks.

The questionable items appear to fall generally into the following areas:

Can anyone really win an all-out nuclear war?

Can we as a nation depend on a single strategic concept linked to a single weapons system any longer?

Will the coming era be one of an atomic standoff?

What type of activity will develop if the atomic capabilities develop into a mutual deterrent?

If an atomic stalemate does develop a change in the pattern of activity, what do we do, when, and how?

As logical thought is devoted to these questions, there cannot help but develop an uneasiness of mind. This skepticism does not arise out of "doubt for doubt's sake" but is rather a trace of fear emanating from an objective appraisal of the world situation today.

Let us examine each of these questions in a rational manner and attempt to arrive at logical answers. To thoroughly study the problem the national security objectives must be considered. The Secretary of the Army, The Honorable Wilber M. Brucker, in testimony before the Senate Armed Forces Committee stated:

The basic objective of the United States national security policy is to preserve the security of the United States and her

Our military forces exist for the purpose of furthering national policy and providing a security for our way of life. This dictates that they be sufficiently flexible to support any policy our Nation may select

fundamental values and institutions. In furtherance of the basic objectives, the United States seeks by any and all means acceptable to the American people to oppose the international Communist movement to the degree that it will no longer constitute a threat to the United States. Thus the prime objective of our national security program is the deterrence [under-scoring added] of aggression.

This view is highly logical and acceptable. It is to the interests of all to avoid war by any honorable means available. Deterrents, however, must be of such a nature as to blanket all possibilities; to deter in one area and to ignore, neglect, or indulge in wishful thinking in others is highly impracticable. A deterrent must be obvious, clearly visible and respected by all concerned, and of sufficient magnitude to constitute a threat, or it is not truly a deterrent. To wave a club at a bully may deter him from attacking you, but to tell him you will find a club and hit him if he molests you will have little effect. Deterrents must be devised in varying fields to include political, economic, and military areas. It also must be in evidence that the people of the country possess a moral strength and a determination to do what they believe is right. As long as people believe in a way of life, and are willing to protect that way of life, the moral strength sufficient

to deter in this area will be evident—and adequate.

The concept of deterrence is not new to the American people. They recognize that the policeman in uniform with a gleaming badge, pistol, and night stick patrolling the beat is the basic deterrent to crime. It is not that he can always prevent criminal acts, but what he represents to the would-be criminal is the strength of law, the contact with other police agencies of greater capability, and a direct association with the agencies of justice. Such is the case with national military deterrents. They must be obvious, in all elements, and have behind them effective ready forces to answer any call, large or small. One problem constantly limits military forces and national leaders, however. That which is an adequate deterrent today may, by scientific discovery, technical advancement, or even preparedness, be rendered completely ineffective tomorrow or the day after. In this respect, terrorists can attack the club as you wait for the bully to attack.

Today's "Great Concern"

With an understanding of our objectives in national security, let us consider each of the questions that contribute to today's "great concern." As to whether anyone can win the all-out nuclear war, we have but to look to the public statements of leaders of countries with widely diverse, but equal interests. President Eisenhower has stated that no one could win such a war because of the ruin, devastation, and suffering each side would, of necessity, bear. Mr. Bulganin of the USSR made public utterances during his visit to Great Britain to the effect that such a war could not be sustained by either side. No loyal American would be willing to exchange New York City for any other city or combination of cities any place else in the world. And if he did so agree, could he ever feel that he had won after such an

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exchange? Participate—we may be forced to; but *win*—never.

For the past several years "massive retaliation" has been based almost entirely upon a single weapons system—the atomic weapon delivered by the long-range bomber. No one can deny that the Strategic Air Command has been the prime deterrent of *general war*. It is interesting to note, however, that since the end of World War II, *600 million people living on approximately 6 percent of the earth's surface* have fallen to Communist control. When Communist aggression was undertaken by military forces, those forces were *ground forces*. And when they were resisted by non-Communist forces, the decisive military power was that of *ground power*—witness Greece, Korea, Indochina—yes, even China herself. All of these were "little wars" when viewed from a global aspect. All of this "little war" conquest was undertaken in the face of our atomic monopoly, or superiority, and without the threat of employment of atomic weapons by the Communists. It appears logical to assume that the atomic weapon coupled with a capability for air delivery was not *truly* a deterrent in all cases.

It is also recognized that the atomic weapon delivered by the long-range bomber is woefully lacking as a weapons system to defeat border skirmishes and jungle warfare. This system is utterly useless in coping with subversive and dissident political elements within friendly countries. The threat of atomic destruction is no lullaby to a country torn by political unrest. All of this serves to support the contention that *a single strategic concept built upon a single weapons system at the expense of all others is not sufficiently flexible*. Security-conscious people doubt its ability to stand the varied tests of an aggressive enemy.

As the current and projected capabilities and limitations of nations are eval-

uated, it appears that the free world and the Communist bloc are headed for an atomic standoff. Each will be able to devastate the other; the check will have been made and a balance reached. It seems logical that the threat of atomic destruction will become a *mutual deterrent*. This thought is already being debated in the world press. Each side will pose the threat while praying it will not be used. To launch the all-out nuclear war would be to ring the death knell of not one but several nations, including that of the aggressor. This form of war could lead to international suicide, but the shadow of *this* alone would certainly not alter the aggressive purposes of international communism. Such an atomic stalemate would merely enhance the conditions under which the Communists could resort to lesser forms of aggression.

They need but look over their shoulder to the recent past to find what has proved to be an acceptable pattern for conquest. That pattern is one of subversion, infiltration, and the promotion of political dissatisfaction. Local aggression in areas of unrest in which "Hessian forces" can be employed will become the order of the day. And why not, if the opposition thinks only in terms of all-out nuclear war and faces an overwhelming deterrent to that? This lesser form of aggression is the one for which forces already exist. Not only is the skeleton there, but also the muscle in the form of powerful land forces in being. *An atomic stalemate will change the pattern of activity but will never alter the Communist dogma of expansion.*

The last of the "great concerns" poses no small problem. When the powers of the world arrive at an atomic standoff and the pattern of activity changes to one of "limited aggression"—and no one can deny this is a distinct possibility—what can we as a nation do? It becomes a dictate that we possess economic stability, political courage, an imbued belief in our way

of life, and have a *flexible* military force.

As to the military force, it must be of such a nature as to always lend itself to supporting national policy. As its objectives, this military force must be prepared to cope with the little war, both as a deterrent and, if necessary, as a victor. It must also pose a threat sufficient to forestall general war, but, that failing, must provide a framework upon which to mobilize to win the "large war." Naturally, these military objectives must be in consonance with our international obligations and compatible to our allies.

To Accomplish Objectives

To accomplish these objectives, certain requirements become obvious. We must continue to maintain, in being, an atomic delivery capability. We must keep military forces deployed to fulfill our international commitments. We must maintain general reserve forces in being capable of moving in hours or days to the trouble spots of the world. Other ready forces must be available to reinforce either deployed or general reserve forces. There is a continuing need for effective assistance programs to our allies to better their capability to assist themselves or others. A framework of trained reserve forces and a standby mobilization base must be ready for expansion to fulfill the requirements of general war, should that develop. In each instance United States forces in being, or the reserve forces on standby, should have the equipment and know-how to employ atomic weapons when approved by the Nation's leaders. Obviously, forces in being must be supported by a logistical organization, in being, adequate to meet the demands of the local war, expand to the proportions of the general war, and live through both. Last, and by no means least, every effort should constantly be exerted to maintain the lead

in the race for a technical superiority.

Although in some minds last rites are about to be conducted for the dominance of land forces in war, a review of the "great concerns" listed herein will lead many to reconsider this burial and postpone it to a later day. It is significant that in this age, in spite of almost unbelievable technical accomplishments, the line of demarcation between peace and hostility is drawn at the furthestmost point of advance of the infantry soldier. If he has not been there, the line is not truly established until he arrives. The infantry and those who support it have a peculiar adaptability, for they seem to fit in all types of wars, large and small. If the enemy's might of retaliation and his possibility of recovery have not been properly disposed of, a true peace has not been initiated until the "Queen of Battle" and her supporters arrive on the scene. Could it be that the toast "Long Live the Queen" is not a mere wishful thought but is truly a factual tribute to the ultimate, dominant force?

Strong Military Force

What has been proposed is a strong military force adequate to cope with war in its every form, be it local or world wide. The deterrence of war in every form is our prime concern. In the event deterrence fails, it then becomes imperative that we win the war regardless of its nature. Military forces of our country exist only for the purpose of furthering national policy and providing a security for our way of life. This dictates that they be sufficiently flexible to support any policy our Nation may select.

One has but to listen to the quizzical buzz emitting today from thinking people as they view international situations to recognize that "the season for a change" is upon us.

The Armed Forces Staff College

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The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.

TWELVE years make a difference—to an officer, perhaps a little added weight, flecks of gray hair, and a mind seasoned by combat, training, and variegated duty assignments; to an established institution, more ivy on the walls and mellowing of traditions; to a new institution, the establishment of traditions and a reputation.

The Armed Forces Staff College (AFSC) falls within the last category. Originated and founded just a little over 12 years ago as the Army-Navy Staff College (ANSCOL), its first class met on 5 June 1943 in Washington, D. C., and graduated the following October. Portions of ANSCOL's course were conducted at the Army Air Force's School of Applied Tactics at Orlando, Florida, and the Naval War College at Newport, Rhode Island. The AFSC was established 3 years later in Norfolk, Virginia, as a permanent school for training in joint operations.

Since its Norfolk debut on 13 August 1946 the college has graduated approximately 3,300 students. Of these, 3,168 have been officers of the armed services of the United States; 7 have been representatives of the Department of State and

other national agencies; and 117 have been allied observers of the British Commonwealth or France. Graduates of the AFSC occupy key positions as commanders or principal staff officers in virtually every combined and unified command, military mission, advisory group, or attaché post throughout the globe. Others have gone on to positions of great responsibility within their own services. All have left the college with a new appreciation of the role of joint and combined operations in modern warfare.

Mission

Such an appreciation is, in fact, the mission of the college. Stated formally, the mission of the AFSC is "To educate selected officers of the Armed Forces in joint operations, including the planning thereof, and to provide background for an appreciation of combined operations."

The present Commandant, Lieutenant General David M. Schlatter, United States Air Force, emphasizes the educational role of the college rather than training by rote or discipline. As General Schlatter has stated:

In the true sense of the word we cannot educate our students. We can and do expose them to organized knowledge, to educational precept and example, to opportunity. We cannot and do not try to make them experts in all things, in all services, to get to be all things to all men.

The Armed Forces Staff College is designed to educate selected officers of the Armed Forces in joint operations, the planning thereof, and to provide background for an appreciation of combined operations

We can and will help them to learn each other's language and the capabilities and limitations of each other's services. More important, we can and will help them to learn to value each other's knowledge and opinions. We can and will help them to learn to work together for the common good.

The college, then, makes available to the student the inspiration, guidance, and tools of experienced value. The student benefits from the course in direct proportion to his own efforts for no grades or class standings are awarded.

General Schlatter's words as well as the stated mission of the college reflect the realization gained from experience in World War II that officers of the services generally lacked an adequate comprehension of the capabilities and limitations of the other services for sound planning for joint operations. Both the AFSC and its predecessor, ANSCOL, were established by the Joint Chiefs of Staff to meet this need, and the AFSC operates today like the National War College and the Industrial College of the Armed Forces, under the aegis and technical direction of the Joint Chiefs of Staff.

Each class at the college is composed of approximately 190 officer students in equal proportions from the United States Army, Navy (Marine Corps), and Air

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Force with a few observers from allied nations. Criteria for eligibility to attend are determined by each service. With approximately 350,000 officers in the United States and a capacity of 200 officers per class at the college, obviously only a few of those eligible can be chosen. Army and Air Force students have usually been in the grade of colonel or lieutenant colonel while Navy students have normally been commanders or lieutenant commanders, including Marine Corps lieutenant colonels and naval aviators. Allied observers were of equivalent grades.

Faculty Organization

The staff and faculty of the college form, in effect, a United States unified command. The commandant is of three-star rank, the service of the incumbent rotating among the three services. He has a deputy commandant of general (flag) rank for each of the other services and a deputy commandant of his own service in the grade of colonel. The last doubles in the role of college executive.

Major academic divisions within the college reflect the J1 (Personnel), J2 (Intelligence), J3 (Plans and Operations), J4 (Logistics), and J5 (Communications and Electronics) Divisions of a United States unified command staff. Additionally, there are a Research and Development and an Academic Planning Division. Each division except the Academic Planning Division is responsible for preparation, coordination, and presentation of instructional material pertaining to its field, and representatives of interested divisions function as members of a joint staff in the preparation, coordination, and control of joint staff planning problems. Resemblance to a unified command is emphasized by the composition of the academic division staffs, for each division includes officers of all services.

The high academic standard of the college is reflected in the quality of faculty

members. Each member of the faculty is a graduate of the college or has a comparable or higher educational or experience background.

Classes begin in late August and early February of each year and last 5 months. The concentration of academic work forced by the limited time is heavy for both faculty and students, but the advantage of graduating two classes a year outweighs other considerations.

Facilities

The student officer who is ordered to the AFSC will find his life for the 5 months of his course centering closely around the 55-acre area and 17 buildings which house the college. The Chief of Naval Operations is responsible by direction of the Joint Chiefs of Staff for the operation and maintenance of the physical facilities of the college and has established a Naval Administrative Command to carry out this responsibility.

The main entrance to the college is about 2 miles distant from the Norfolk Naval Base. A rear entrance borders on the headquarters compound of the Supreme Allied Commander Atlantic, Commander in Chief Atlantic (SACLANTCINCLANT). Within its boundaries, however, the college represents a small self-contained community. The college buildings, each named for an amphibious operation of World War II, provide administrative and academic facilities, family quarters, dispensary, Navy exchange, libraries, clubs, barracks, and service station. The emphasis placed upon service cooperation takes on real color when one considers that approximately 120 of the students or staff and faculty members live with their families in 2- or 3-bedroom quarters in apartment buildings on the college site. The deputy commandants and the commander of the Naval Administrative Command have separate quarters on the station; and the bachelor officers' quar-

ters at SACLANTCINCLANT provide single officers with all necessary facilities, including mess. Since preference for quarters at the station is generally given to those with the largest families, nearly 800 persons are quartered on the station.

A 2-minute walk from their quarters will bring the student officers and faculty members to their offices in Tarawa Hall or Normandy Hall, the main administrative building. A few hundred yards distant is Marianas Hall with its 649-seat auditorium used for lectures, special ceremonies, and in the evening as a community theater. In this hall are also the facilities such as the Navy exchange, beauty shop, cafeteria, barber shop, officers' club, bowling alley, chaplain's office, recreational library, and reading clinic.

Curriculum

The AFSC course is generally divided into three parts: orientation and background instruction (210 scheduled hours); joint and combined planning and operations (326½ scheduled hours); and trends of war (69 scheduled hours). Roughly one-third of the scheduled hours of the course is spent in the auditorium. Guest lectures are normally 1 hour, followed by a 1-hour question and discussion period. Faculty lectures, team presentations, and skits vary from 1 to 3 hours and are not normally followed by question periods.

The bulk of the scheduled time is devoted to group discussions or staff conferences in the student section rooms and to independent reading, study, and research. Permanent student sections are formed with approximately 15 students per section, with equal representation by all services. Each section has a permanently assigned Army, Navy (Marine Corps), and Air Force faculty advisor who, throughout the course, is the individual advisor and point of contact for the officers of his service assigned to the section.

For each of the first five numbered

problems of the course, students are re-assigned to triservice, *ad hoc* sections with a single faculty advisor for that particular problem. By this means each student theoretically will have worked intimately with approximately 80 other students and 8 faculty advisors during the course. With the exception of the first five numbered problems, and short periods of related instruction, students remain and work in their permanent sections.

Orientation and Background

The orientation and background instruction leads off with what is colloquially referred to as "Army Week," "Navy Week," and "Air Force Week." These weeks provide student officers with a general orientation as to functions, organizations, capabilities, and limitations of each of the services. Each week is devoted to guest and faculty lectures and to a series of group studies wherein student sections study each of the services in turn. The instruction is conducted by the student members of the service under study and is supervised by the faculty advisor of that service. Guest speakers, exceptionally qualified and high-ranking officers of the services, cover organization and functioning of the services at departmental level, new developments, concepts of future operations, and special operations such as submarine and antisubmarine warfare by the Navy, the role of the United States Marine Corps in global warfare, and strategic air operations by the Air Force.

Practical demonstrations interspersed throughout the course furnish further background to this part of the course and a refreshing variation from the routine study. Such a demonstration is the 1½-day field trip on an attack aircraft carrier at sea. All phases of day and night carrier operations are observed and limited numbers of students participate in aircraft launchings and landings, and ship-to-ship transfers. The college endeavors to permit stu-

dents to observe many types of operations at sea such as refueling; replenishment; land, water, and carrier-based aircraft; blimps; submarine and antisubmarine warfare; and naval gunfire.

A conducted tour is made of various types of amphibious ships and landing craft, ranging from command, assault transport and cargo ships, through small landing craft. The Naval Amphibious Training Command, Little Creek, Virginia, demonstrates techniques and procedures employed in planning and conducting an amphibious assault, and enacts an actual live amphibious assault landing involving close gunfire support, underwater demolition team operations, close air support, ship-to-shore movement, securing of beach-head, and initial beach control measures. A day at sea in a *Guppy* submarine, including dives, snorkeling, and being subjected to depth charges (at safe distances!) is included.

The highlight of the field exercises is the 1-week field trip via air to Eglin Air Force Base, Florida, and Fort Benning, Georgia, for Air Force and Army demonstrations at the time of the Joint Civilian Orientation Conferences in October and May. At these bases the Air Force and Army present outstanding demonstrations of firepower, tactics, techniques, and new matériel developments of those services. The Fort Benning phase includes an impressive airborne personnel and equipment drop demonstration.

Joint and Combined Planning

The second portion of the course, Joint and Combined Planning and Operations, is built around the framework of six numbered problems.

First, is a 7-hour group discussion designed to acquaint the student with the joint planning process and familiarize him with joint operational planning documents. In this problem are included the form, content, and scope of such docu-

ments as campaign plans and annexes, estimates, concepts, operation studies, and operation plans and annexes.

Next, is a 32½-hour problem which acquaints the student with the relationships between the incident to joint and combined staff and command organizations. This problem delves into organization and command relationships of a combined command within the NATO structure, and the relationship of a United States unified command established in accordance with current United States joint doctrines.

The third problem, lasting 35 hours, gives practical work in the initial planning that takes place in a combined command prior to the commencement of hostilities. It includes preparation of an intelligence estimate, a commander's estimate of the situation, and an emergency war plan. An ancillary, but by no means negligible, benefit of this and succeeding problems is the acquisition of a working familiarity with the strategically important Mediterranean, Near East, and Middle East areas.

The fourth problem, of 38 hours' duration, delves into planning for the conduct and logistic support of a major amphibious operation; and the fifth, of 24½ hours, is concerned with establishment and maintenance of an independent airhead in enemy-held territory. This problem includes civil affairs/military government planning.

In the sixth and last problem, with 100 scheduled hours, the student applies knowledge he has acquired in preceding parts of the course. Acting in the role of commanders and their staffs, student officers work out plans for a major campaign by unified and combined military forces; examine United States problems involved in planning for and conducting such a campaign; and explore the employment of atomic

weapons within a combined, NATO type command.

Throughout this phase of the course are presented guest and faculty lectures, and practical exercises on related subjects such as computation of amphibious lift and airlift requirements for proposed operations.

The final phase, or trends of war, completely frees the student from considerations of current and "conventional" organizations, matériel, tactics, or doctrine, and permits him to exercise his imagination fully in the light of new weapons systems. This phase includes group discussions on national strategy and the trends and effects of new developments on joint operations. Guest speakers cover related subjects such as psychological warfare, ideological warfare, the role of diplomacy in world affairs, and the place of war in international diplomacy.

In addition to the formal phases of the course, many profitable hours are spent by the students reading or browsing in the College Library with its 80,000 classified and unclassified volumes and documents on military and related subjects. As in all phases at the college the library specializes in material on joint and combined operations.

Many of the academic benefits of the course might be gained by an individual through independent research and study, but only by living together, working together, playing together, and learning to know one another can a true triservice understanding be acquired. The vital intermingling which the college affords to its students is represented by the college insignia whose shield incorporates red for the Army, silver for the Air Force, and blue for the Navy into an inseparable whole and by the college motto: "That All May Labor as One."

THE GENERAL STAFF OF THE GERMAN ARMY

Carey Brewer

The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.

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WHEN warfare evolved to a stage at which a military commander could no longer attend to all the details of command (due to larger-scale, as well as more complex operations), it became imperative that the commander delegate certain of his functions to especially trained assistants who should act in his name and be held directly responsible to him. As this requirement began to be met on a steadily increasing scale, there developed a distinctive body of officers set apart, sometimes permanently, to perform the "staff" duties of a higher type, and from this practice have evolved all the modern military staff systems.

The primary purpose of this article is to present a case study of the military staff system generally conceded to have most nearly approached perfection, in an effort to demonstrate the inherent shortcomings of a supreme, single-service general staff in the modern setting of multi-service warfare. The secondary purpose is to indicate how extremely difficult and

unwise it would be to establish a single General Staff system to serve the land, sea, and air forces as a group.

As a result of these two purposes, this article is essentially a defense of the present American system of separate and equal service staffs designed to meet the peculiar needs of their respective services in the performance of their assigned missions. Despite continuing efforts toward further unification of the military services in such functions as supply management and intelligence, the fact remains that each service is eminently more qualified in its own area of operations than either of the other services might hope to be. This applies to staff arrangements as well as to many other internal matters of the separate services.

Must Be Unified Direction

Certainly there must be unified direction. But the United States Armed Forces have clearly demonstrated that such unity can best be achieved through joint staffing of planning bodies, including the Joint Chiefs of Staff, on a basis of equality. To attach a degree of primacy to the role of any single service and to accord that service a disproportionate voice in the direction of the Armed Forces would almost certainly result in a corresponding neglect of the other services, which could be disastrous to the national security.

On the surface it might appear that the answer lies in constructing a unified staff system from the ground up, but such would run counter to some of the very con-

ditions creating the requirement for unified direction at the top, namely, the advancing technology which enables a nation to bring to bear all elements of its armed forces in a coordinated assault on an enemy. The advanced "state of the art" has resulted from specialization among its components, not generalization. The problem is to achieve maximum integration in the use and direction of highly specialized branches.

Descriptive Analysis

To support these conclusions, the bulk of this article is devoted to a descriptive analysis of the German Army General Staff system. It deals with those factors primarily responsible for the German failure to achieve the desired balance in the use of the three services, as well as with those factors which tended to strengthen the internal staff system of the German Army. It is the contention of this author that only through intense concern for the peculiar needs of its own service was the army General Staff Corps able to achieve the degree of excellence with which it managed the German Army. But when the army General Staff eventually achieved considerable control over the strategic role of the navy, the inadequacy of a single-service supreme General Staff for the direction of multiservice forces soon became apparent. In terms of our own setting, the contention is that a significant

the advantages of separate specialties, World War I brought to light the inherent difficulty of integrating land and sea operations under the direction of the supreme army General Staff, the chief of which was also commander in chief of the army. And subsequently this basic concept was abandoned in favor of three separate service general staffs, including the air force staff, with integration being sought at the combined forces level through the employment of officers from all three services. Failure to achieve the desired harmony of planning and execution of operations under this latter arrangement is believed to have resulted largely from not having drawn combined forces staff officers from the three service headquarters, which subsequently were charged with executing plans developed by the combined forces staff.

Regardless of other lessons to be derived from German command and staff experience during World War II, the central lesson apparently is that one of the most distinctive features of the German staff system, the "Great General Staff," along with its supporting substructure, was not suited to the performance of its basic functions in an era of multiservice military operations and total national mobilization. It was developed over a long period during which land operations monopolized the thought of Prussian and later German military leaders; and the tradition of the closed system of the General Staff Corps

A military staff can be successful only when used as an instrument of the military organization it is designed to serve. Its function cannot be performed by a system forced upon an organization from above

degree of unification among the separate internal staff systems in the United States Armed Forces would be a mistake.

Although a prime objective of German military leaders was to fit together as smoothly as possible the areas of "planning" and "operations" while retaining

supporting this feature apparently was too rigid to permit its adaptation to the requirements of directing separate branches of the armed forces. This, at least, was indicated by the basic changes in high-level command arrangements instituted in Germany before and during World War II.

Historical Development

The German General Staff was the product of a long historical evolution. Credited by some as having stemmed from the staff organization of Frederick William of Prussia in 1635, this staff system attained its full development during the latter half of the nineteenth century, at which time the Chief of the General Staff became the highest German military leader, and the General Staff itself achieved virtual independence from any civil authority except the Emperor.

This high position of the General Staff had gradually developed from the functions performed in the early years by the "Quartermaster General's Staff," which over a period of time expanded to include not only supply and quartering duties, but almost all staff duties connected with operational and intelligence functions. By the beginning of the nineteenth century the Quartermaster General's Staff had become highly trained in military science and tactics, and in 1803 its supremacy within the Prussian Army was officially established by the King, who, among other things, decreed that only those matters approved by the Quartermaster General and three of his lieutenants should be submitted to the King for approval. This royal order granted the Quartermaster General a key position in the flow of business between the army and the King, and within a few years the term "Quartermaster General's Staff" came to mean "General Staff" throughout the Prussian military system.

The evolution of the Prussian (later

German) General Staff over the next 100 years was marked by the division of the General Staff into two distinct parts, one portion being located in Berlin and called the "Great General Staff" (*Grosser Generalstab*), and the other being distributed among the various field commands under the term "Field Forces General Staff" (*Truppengeneralstab*). Both of these parts were under the direction of the War Ministry until 1821, at which time the entire General Staff was placed directly subordinate to the King. It was under these circumstances that the General Staff developed into the most important institution of the German military system after the war of 1866, the Chief of the General Staff eventually being recognized as the leader of the armies in wartime. Although the Emperor was the "Supreme War Lord," it was understood that the Chief of the General Staff in wartime should exercise command of the armies in the name of the Emperor, submitting major decisions to the Emperor for approval. In effect, the Chief of the General Staff thus became head of the entire military system.

These were the basic arrangements of the German General Staff prior to World War I, during the course of which several fundamental changes were introduced. The period between World Wars I and II witnessed a great many developments which precluded the reestablishment of the German General Staff in any form approximating its previous status and makeup, and the peculiar arrangements instituted by the German chief of state for the conduct of World War II rendered the remains of the classic German General Staff hardly recognizable.

Basic Characteristics Prior to 1914

At the close of the nineteenth century the German General Staff more closely resembled the ideal of its chief architects than it did at any other time. At

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this time it enjoyed its highest prestige and was marked by several outstanding characteristics: the highly competitive manner in which officers were selected and trained for the General Staff; a sharp distinction between routine staff functions and staff functions directly related to the planning and execution of field operations; the broad authority conferred on General Staff officers; the elite nature of the General Staff Corps; and, finally, the General Staff privilege of appealing directly to the chief of state in matters affecting the military.

The educational system supporting the General Staff Corps officer training and selection program was significant not only because of its tendency to ensure the appointment of the best qualified officers to the General Staff, but also because it was a means of giving advanced training to future high commanders of the army. This common experience also made possible a greater degree of cooperation between General Staff officers and other units of the army in later years.

As a result of rigid competitive examinations, a few candidates (approximately 150 during the years immediately preceding World War I) were selected from the entire officer corps to begin a 3-year course of intensive study at the famous *Kriegs-akademie*. At the end of this course, roughly 30 percent of the candidates passed a competitive examination covering, in addition to subjects of a military nature, such matters as personality, character, general education, and personal behavior. These successful candidates then were "commanded to the Great General Staff," usually for a term of 2 years.

Selection for duty with the Great General Staff at this point, however, did not necessarily mean that a candidate would become a regular General Staff officer, although it was an almost indispensable step toward that goal. This was merely another phase of training preparatory to

final selection. Those candidates commanded to the Great General Staff were distributed among the various sections where they were trained to apply their military education to the solution of specific problems in three distinct phases: weekly tactical exercises on maps; more ambitious exercises directed by the departmental chiefs at the end of the winter; and participation in the several strategic exercises personally conducted each year by the Chief of the General Staff himself.

Final Selection

Final selection for membership in the General Staff came as a result of the third competitive examination, which was conducted after this period of tentative service with the Great General Staff. Of the original class of about 150 accepted for entrance at the War Academy, 4 or 5 of those remaining at this stage were selected for definite assignment to the General Staff.

Rejection of candidates at various points in the selection process did not necessarily preclude them from ever serving on the General Staff, however, because there was a possibility that at a future date they would be "commanded" to serve as a consequence of having demonstrated unusual ability in other areas of military service. In actual fact, during wartime many General Staff officers were selected from among those candidates rejected at the final examination, this group being considered a reserve pool for General Staff officers.

In addition to this possibility of future selection to the General Staff, officers who had passed through the War Academy also enjoyed considerable advantage over other officers of the line in terms of promotion and assignments. One consequence of this situation, according to General William Ludlow, was:

... that as a matter of fact most of the

prominent commanders [were] graduates of the War Academy, as would be the natural result of a method of selection where merit and efficiency are the sole standards.

The duties of the General Staff dealt not only with strategical problems and tactical considerations, but also with the actual implementation of operations decided upon by the commanding generals. As a general rule it was the function of the General Staff first to advise the commanding general and then to convert his decisions into orders and work out all details of operations. General von Schellendorff said:

A General Staff officer cannot excuse himself of any neglect on his part on the plea that no order on the subject had been given him by his general. He should consider himself freed from responsibility only when his suggestion has been declined by the general.

One essential characteristic of these broad duties was that, although the General Staff officer freely advised his general and shared responsibility for the outcome of operations, the final decision was always that of the general. The General Staff officer was always expected to resist any temptation to command. The big exception to this otherwise uniform arrangement was, of course, the top-command authority exercised by the Chief of the entire General Staff of the army in the name of the Emperor; and even here the myth of the Emperor as "Supreme War Lord" was maintained by the practice of having major decisions submitted to the Emperor for approval.

Two Major Parts

The two major parts of the German Army General Staff, the Great General Staff at Berlin and the Field Forces General Staff, together were administered by a single head, the Chief of the General Staff of the army. The entire body of

General Staff officers usually numbered approximately 250, with fewer than 100 serving on the Great General Staff at any given time.

The Great General Staff was charged with all responsibilities connected with the drawing up of plans for possible future operations, including logistical and intelligence functions. This body, moreover, provided for the training and selection of younger members of the General Staff, and conducted studies of war and military history. It was here that the young General Staff officer usually received his final training prior to definite selection to the General Staff. Through intensive map exercises and other assignments, every officer was pressed almost to the limits of endurance in order to develop his capacity for hard work and to fit him for the strenuous General Staff work required in time of war.

The Chief of the General Staff was assisted in the supervision of this central body by three "Chief Quartermasters" who acted in the name of the chief, both in directing the General Staff officers distributed among the field commands and in supervising the chiefs of the various sections of the Great General Staff.

General Staff officers serving with field commands formed the Field Forces General Staff, and carried out their duties as recognized representatives of the Chief of the General Staff. As in the case of the central, or Great General Staff, the number of officers was kept to a minimum, the usual distribution being: at least 2 senior and several junior General Staff officers on the staff of an army; 3 to 5 General Staff officers for an army corps; and a single General Staff officer for a division.

At the army and corps levels the senior General Staff officer carried the title "Chief of the General Staff," and directed all operations of both the General Staff and the Routine Staff. Directly under the chief at the army level was a "Quarter-

master General" who supervised the day-to-day work of the General Staff and served as the chief's substitute when necessary. At both the army and corps levels the senior Routine Staff officer, under the direction of the chief, supervised the work of the Routine Staff.

The division of staff work which was made between General Staff and Routine Staff officers at the army and corps levels was most important, and indicates in some measure the position enjoyed by the General Staff. Matters dealing with maneuvers, mobilization, communications, intelligence, maps, reconnaissances, and army organization were assigned to General Staff officers, whereas staff functions of a routine nature, such as disciplinary actions, decorations, discharges, orders of the day, and reports, were carried out by Routine Staff officers. The work of the corps "operations officer," who occupied a position just below the chief, was characterized by Schellendorff as "the most extensive and responsible work done by the army corps staff"; and it is significant that appointment to this position was restricted to those senior General Staff officers who had previously served with a division staff.

The importance attached to the position of Chief of the General Staff of a corps is demonstrated by the broad powers conferred on the chief with respect to the duties of the commanding general as well as the relations between the commanding general and the corps staff. Not only was the Chief of the General Staff empowered to sign on his own authority any orders or instructions deemed of sufficient urgency in the absence of the commanding general, but he was also in full charge of determining what business might be laid before the general. Moreover, all officers were required to obtain the permission of the chief before interviewing the general. Similarly, no paper was submitted to the commanding general for signing until the

Chief of the General Staff was fully convinced that all regulations had been complied with and that the decisions of the commanding general had been carried out.

At the divisional level the single officer representing the General Staff carried no title corresponding to that of "Chief of the General Staff." The general commanding the division was expected to supervise the work of the staff, which was much smaller than that of a corps; and the work of the General Staff officer, as chief of one staff section, was concerned largely with executing orders of the general, rather than with planning operations. If he were senior in rank to the Routine Staff officers of the division, however, he was considered "first man" on the staff and was held responsible for getting out the work of the entire staff, even though he had no direct authority over any section other than that which he personally headed.

Line of Development

As illustrated above, the work of the General Staff officer included both service with the several field commands as well as assignment to a section of the Great General Staff, along with other special appointments in some instances. In addition to this special staff work, however, great emphasis was laid on periodically returning the General Staff officer to line duties. The result was that the usual line of development for General Staff officers was one rotating among: service with the Field Forces General Staff, command of troops, and service on the Great General Staff itself. Usually the young General Staff officer, after completing 2 years' tentative service with a section of the Great General Staff prior to final selection, began his General Staff career as aide to the Chief of the General Staff of a corps. Subsequently he would be given command of a company, battalion, or regiment at various intervals as he ro-

tated to the higher positions within the Great General Staff and the Field Forces General Staff. Usually, Chief of the General Staff of a corps was the highest position to which a General Staff officer might rise, except for command of a section of the Great General Staff.

Despite this system of rotation, the General Staff officer was always a member of a select, closed group. The distinguishing wine-red stripe was a permanent part of his uniform, even when assigned to regimental duty, and the informal ties among General Staff officers in all three areas of service were quite strong. Apparently these ties served a useful purpose in making the conversion of plans to operations a smoothly functioning process at higher levels of the German military system. Instead of creating dissatisfaction within the various commands of the army, this network of General Staff officers tended to strengthen the command-staff relationship, largely because of the Prussian device of "coresponsibility."

Coresponsibility

The so-called "coresponsibility" arrangement which existed in the Prussian, and later German, military system was simply a provision whereby the senior General Staff officer, such as the Chief of the General Staff of an army or a corps, was held equally responsible with the commanding general for the success of the command; but at the same time the General Staff officer had no authority. This served to ensure the loyalty of the General Staff officer to his general and also tended to increase the confidence the general might have in his closest advisor and first assistant, his Chief of the General Staff. The direct responsibility of the chief was often pointed up by the removal of this officer, rather than the commander, after a serious failure by the command to which he was attached.

One essential of this relationship was strict obedience by General Staff officers

to the tenet of their code which required them to resist all temptations to assume command except in an emergency during the absence of the commander. The chief duty of the General Staff officer was to make available in a convenient form information which would enable the commander to grasp the situation at hand and make the necessary decisions, relying heavily on the advice of his senior General Staff officer. Once the commander reached a conclusion, it then became the task of the General Staff officer to translate his decision into concrete orders and supervise their implementation. The General Staff officer also would make judicious proposals for the consideration of the commander.

Dual Role

The nature of the General Staff duty was especially suited to the function of converting the wishes of a commander into concrete orders for troops. The General Staff officer was both planner and executor, to varying extents. His grasp of the broad considerations and his mastery of the many details of operations, together with his close association with the commander, aided him both in representing the situation to the commander and in carrying out decisions subsequently reached by the commander. At the same time, the task of the commander was made easier because the work of his General Staff officers relieved him of many duties which might otherwise have been associated with command responsibility.

At higher levels this dual role of the General Staff was of great importance in the implementation of plans drawn up by the Great General Staff. The Chief of the General Staff of an army or a corps was intimately acquainted with the method and thinking of the Great General Staff due to his long experience as an operating member of that body. Moreover, his personal connections with the members of the Great General Staff and their immediate

responsibility to a common chief, such as the Chief of the General Staff of the army, were highly conducive to a full understanding of plans transmitted from the Great General Staff for execution.

It is clear, however, that this system was suitable only for the management of the army. Every phase of General Staff Corps training and experience was based on the assumption that the army would be the only major instrument of military action, and that, consequently, the General Staff should concern itself almost solely with army affairs.

After 1821, when the Chief of the General Staff became free of any control by the Ministry of War, both the Chief of the General Staff and the generals in command of armies were considered directly under the Emperor, the "Supreme War Lord." In practice, however, the Chief of the General Staff exercised virtually complete control. According to Schellendorff, the Emperor's:

... first assistant, as regards the province of warlike operations, is the Chief of the General Staff of the army. The latter submits to the Emperor the various measures it is desirable to take to meet the requirements of the military situation, asks for his decision, and then, by order of the commander in chief, issues them to the generals commanding armies in the form of 'dispositions,' 'instructions'. . . .

During World War I

Under these arrangements the Emperor was reduced to a figurehead in military matters, the Chief of the General Staff eventually acquiring the position of commander in chief. The practice of submitting major plans and decisions to the Emperor, who retained the title of "Supreme War Lord," however, continued even until the close of World War I.

During World War I a basic change occurred in the nature of the German General Staff. The Great General Staff continued

to be the center of the military system; its only possible rival, the Admiralty (*Admiral Staff*), being relegated to a minor role due to the continuing prestige of the long-established army General Staff. But when the Chief of the General Staff, the younger Moltke, became ill early in the war the Emperor replaced him with his Minister of War, General von Falkenhayn, thus combining the post of War Minister and Chief of the General Staff for the first time.

With this merger the Emperor confined himself to the role of "royal observer." The Minister of War, as Chief of the General Staff, directed the entire military system with virtually complete independence from outside interference. At a later date Falkenhayn characterized this arrangement in the following terms:

On the basis of the Imperial Constitution the control of the whole of Germany's armed forces, and consequently the supreme command of the army, not only of that of the army in the field, but of all that could be regarded as belonging to the army—as well as of the navy—lay directly with the Emperor as Supreme War Lord. Thus the supreme command was centered in his person. His organs in the fulfillment of the duties of Supreme War Lord were the Prussian Chief of the General Staff of the army for the land forces, and the German Chief of the Naval Staff for the sea forces, whereby it was tacitly accepted that the voice of the Chief of the General Staff would be the deciding factor in matters which touched the conduct of war, both on sea and land.

Despite the importance of seapower in German strategy during World War I, the army General Staff maintained its control over the entire military effort under the mistaken belief that the excellence of the General Staff in army matters qualified it for control over the direction of the navy.

Under the supervision of the Chief of

the General Staff, the department heads of the Great General Staff became the real directors of the war. In the field the chiefs of staff of the various army commands tended to overshadow their commanding generals, and a great many of the commanding generals themselves were members of the General Staff. In the words of Goerlitz, "The era of rule by the General Staff had begun."

Between the Wars, 1919-38

German defeat in World War I ended the existence of the German General Staff in its classic form. Although the German military leaders did succeed in their efforts to circumvent the treaty provisions abolishing the General Staff, their success was only partial because the position and spirit of the pre-World War I General Staff were never regained. Some influences of the classic General Staff, however, persisted until the final collapse of Nazi Germany in 1945.

The Treaty of Versailles provided for the dissolution of the Great General Staff and attempted to prevent its reappearance by stipulating that the army should be under the direction of a civilian minister and be divided into two group commands of equal authority, no military officer being in command of the entire army. The Field Forces General Staff was permitted to remain intact.

Before the dissolution of the central body, however, General von Seeckt drew up plans according to which the new military system, under a civilian Minister of National Defense (*Reichswehr* Minister), would include a "Field Forces Agency" (*Truppenamt*) to perform the old functions of the Great General Staff. And when the new system was established Seeckt, himself, became head of the Field Forces Agency, which included about 60 officers.

Subsequently the entire army was again controlled by a single military officer when the position of Chief of the Army Com-

mand (*Chef der Heeresleitung*) was established directly under the Defense Minister. The General Staff, however, did not regain its earlier right of direct appeal to the chief of state, and the doctrine of "coresponsibility" for General Staff officers was discontinued. But an effort was made to retain General Staff officers in the drastically reduced army by greatly expanding the number of staff positions allotted to the various army commands. The staff of a division, for example, was expanded to include nine General Staff officers, whereas prior to World War I it included only one.

One important feature of the old General Staff system which the German military leaders sought to salvage after Versailles was the educational and selection machinery for supplying the General Staff with young talent. To replace the famed *Kriegsakademie*, a decentralized system of schooling and selection was adopted. In seven different schools 2-year courses were conducted at first, and later a third year was added. The competitive nature of the old system was maintained, despite the fact that final selection was less free from outside interference. The number of officers finally selected continued to be very small.

Following the Rearmament Proclamation of 1935, several organizational changes took place in the German military system. The Ministry of Defense became the War Ministry, with the occupant of the cabinet post, General von Blomberg, being promoted to the rank of Field Marshal in command of all three services—army, navy, and air force. At the same time the Chief of the Army Command became the Supreme Commander of the army (the Army Command taking the name *Oberkommando des Heeres, OKH*) and the General Staff discarded the term *Truppenamt*, taking on the title of General Staff of the army.

The General Staff was quickly expanded during this period, and every effort was made by its Chief, General Beck, to regain its former position within the military

system. The staff was expanded to 190 officers and the number of departments was increased from 4 to 12, grouped under the direction of 5 Chief Quartermasters, who served as "subchiefs." But the position of the joint staff operating within the War Ministry tended to prevent the reacquisition by the army General Staff of its former position. The "Security Service" (*Schutzstaffe*, or SS), moreover, began infiltrating into the army, its members occupying positions as high as general, and this tended to reduce the control of the General Staff over the army. As a result of these and other influences of the Third Reich, the army General Staff declined in importance within the military system to such an extent that the Chief of the General Staff is said to have had only one conversation with Chancellor Adolph Hitler between 1934 and 1938.

As a consequence of these and other similar developments, the General Staff of the army lost many of its former characteristics as World War II approached. Due to an increased workload occasioned by organizational difficulties, even the custom of rotating General Staff officers to regimental duty was abandoned. By 1938 the status of the General Staff was reduced to the lowest level when Hitler ordered that body to cease preparing plans for future operations, confining its actions, instead, to the organization and training of the army. Although later the role of this body was again expanded, it was clear from this point forward that there was little chance that the General Staff of the army would ever achieve the status formerly occupied by the Great General Staff.

Developments of World War II

The pattern of German military command arrangements for World War II was foreshadowed by the events of 1938. Hitler's assumption of direct command of all the armed forces in that year, following the dismissal of Minister of War General von Blomberg, marked the beginning of direct

personal control by the Führer. Blomberg had attempted to build up in the War Ministry (*Wehrmachtamt*) a "coordinating" staff of officers drawn from all three services, but the staff of the new organization instituted by Hitler, the *Oberkommando der Wehrmacht* (OKW), tended to become a "supergeneral staff" under Hitler's private Chief of Staff, General Alfred Jodl. During the war this department was called the Wehrmacht Leader Staff (*Wehrmachtführungsstab*), and was fully understood to be the politico-military office through which Hitler issued instructions and received information relating to the war effort.

The personal intervention of Hitler, however, was not the only influence tending to reduce the position of the former Great General Staff. The growth of German sea-power, and its increased role in German strategy, combined with the advent of airpower in modern warfare, made it apparent that the army General Staff could no longer exercise extensive control over the entire war effort. These developments produced a situation in which the logical location for the functions of the old Great General Staff was no longer within the army, but at a level encompassing the navy and the air force as well as the army. It became necessary for all three services to participate in the work of top-level planning. The creation of Hitler's personal staff under Jodl, however, failed to meet this requirement due to the fact that it did not grant the individual services a real voice in the planning itself. The end result was the existence of four separate "General Staffs"—the Wehrmacht Leader Staff, the army General Staff, the Luftwaffe General Staff, and the navy Kommandoamt.

The collapse of the Third Reich brought to a close the formal history of the German General Staff. But by this time the staff system generally considered responsible for the remarkable efficiency too often demonstrated by German armies during the

past 100 years had long ceased to exist. It is clear that the army General Staff which emerged from World War I and subsequently directed the German Army during World War II bore little resemblance to the earlier supreme General Staff. The advent of multiservice warfare in German strategy made impractical the supremacy of a single-service General Staff, and the resultant position of the army General Staff as a planning and directing group for only a limited area of German military operations deprived that body of any valid claim to the prestige and authority it formerly had enjoyed as the supreme General Staff.

The independent staff erected over the three service staffs during the World War II period could not lay claim to such status, for it was never able to attain the unity of military action formerly achieved by the German Great General Staff. It sought to direct the separate services from a posi-

tion virtually divorced from the services themselves.

Conclusion

The central lesson to be derived from the German experience appears to be that a military staff can be successful only to the extent that it is used as an instrument of the military organization it is designed to serve. Its function is not one which can be performed by a system pushed down on an organization from above. It must, in every sense, be a product of its own organization. Projected to a level encompassing several military organizations with differing particular purposes, modes of operation, and staff requirements, it is clear that staff arrangements must mirror those differing characteristics in order to meet the peculiar requirements of those organizations as well as to make maximum use of their individual capabilities.

The improbability of any one kind of war cannot be equated with the likelihood of peace. An aggressive enemy who possesses huge ground forces, well-trained and well-equipped, can be expected to make use of them to attain his ends. We must be prepared to deal with small, peripheral wars, with military pressures, with attempted seizures of power in friendly areas, and with every other means by which an aggressor might seek to enlarge his domain. We must be as well-prepared to deal with these eventualities as we are to retaliate against an intercontinental nuclear assault.

If, in the end, we are called upon to fight an unlimited nuclear war—if deterrence should fail, if retaliation should fail—it will in all probability be a long, desperate, and exhausting struggle. We must keep that in mind. No one can foretell exactly what course such a war would take, but certainly neither days nor months would break the American will to fight. We must have the means to survive, and power to counterattack because America will never accept any verdict short of victory.

Secretary of the Army Wilber M. Brucker

REPATRIATION

IMPACT ON JAPANESE COMMUNISM

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The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.

THERE is, perhaps, no single issue which generates more interest and compassion among a people as a whole than the absence of loved ones in the hands of the enemy. The history of the negotiations at Panmunjom, the Adenauer trip to Moscow on behalf of the German prisoners of war (POW's), the Geneva negotiations for the release of Americans in Communist China, and the current Soviet-Japanese peace treaty negotiations all attest to the political importance of this subject and to the worldwide Communist use of these illegally-held hostages to exact major concessions from the free world.

Perhaps only in General Douglas MacArthur's handling of the Soviet retention of Japanese POW's in Siberia many years after the termination of the Pacific war have we been able to make this cruel policy redound to the discomfiture of Soviet designs.

The purpose of this article is to trace the Soviet policies with respect to the repatriation of the 1,600,000 Japanese prisoners captured in Manchuria and Korea as

a result of the 1-week intervention of the USSR in the Pacific war. These policies will be evaluated as to their impact on the Japanese Communist Party during the period 1945-50. Although no attempt has been made to trace communism in Japan beyond 1950, the trend started during the Occupation continues today. The Japanese Communist Party elected only two Diet members in the February 1955 general elections and is reputed to have no more than 60,000 members.

The Problem

By late summer of 1945 the Allied Powers were firmly entrenched in Japan. Under General MacArthur, the Supreme Commander for the Allied Powers (SCAP), the disarming of the Japanese armed forces in the homeland had been completed and major progress had been made toward the first goal of the Occupation, the demilitarization of the Japanese Empire. It was at this time that General MacArthur focused the attentions of his staff on what was to be one of the cornerstones of his "benevolent Autocracy" in the Occupation, the Repatriation Program.

In September 1945 there were approximately 6,614,000 Japanese nationals, both military and civilian, outside the home islands of Japan dispersed through the islands of the Pacific, Southeast Asia,

The specter of the unrepatriated Japanese prisoners of war and the Communist use of these illegally-held hostages to exact concessions from the free world continue to delay the signing of a peace treaty

China, Manchuria and Karafuto, and the Kuril Islands. There were, in addition, approximately 1,187,000 non-Japanese orientals in Japan, many of whom had been forcibly brought to Japan, who were desirous of repatriation; and approximately 199,000 non-Japanese orientals displaced from their homelands in areas other than Japan.

This monumental task of moving 8 million people was the greatest mass migration of human beings by sea in the history of mankind.

The basic policy for the program was contained in that part of the Potsdam Declaration which states:

The Japanese military forces, after being completely disarmed, should be permitted to return to their homes with an opportunity to lead peaceful and productive lives.

The return of civilian nationals to Japan and non-Japanese nationals from Japan were included in the repatriation program in accordance with United States policy when their evacuation was considered desirable for humanitarian reasons and as a matter of military necessity.

It is of interest to note that no other directive concerning repatriation was ever known to have been received by SCAP.

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Applicable Concepts

The Occupation would exercise power through the tottering, apathetic, but still existent, Japanese Government. This entire structure was handicapped by the anchorless feeling that the Japanese people had renounced their most important sense of values in surrendering to the Allies instead of dying for their Emperor.

All policy directives to the Japanese Government would emanate from one man, the Supreme Commander. This concept, calculated to mesh into the cultural background of Japan, was to make the Occupation one of the most highly centralized administrations of modern times. The roles of all of SCAP's subordinates (such as Commanding General, Eighth Army and Commander, Naval Activities Japan (COMNAVJAP)) were to be reduced to supervision to ensure compliance by the Japanese Government with these directives.

The benevolent goal of the Occupation would be the reshaping of Japan into a bonafide democratic friend of the United States and the other Allied Powers. And how better could this benevolent side of the Occupation be stressed than by a vigorous repatriation program to return the Japanese soldiers to their homes promptly (and, of course, thus make them available to rebuild Japan and to be subject to our democratizing program).

All costs incident to the Occupation were to be borne by the Japanese Government.

Organization and Operations

Let us now consider the actual organizational structure that moved 8 million people. Negotiations and communications with overseas areas, commands, and representatives of foreign governments were conducted by SCAP.

All repatriation shipping was Japanese manned and operated by the Maritime Ministry of the Japanese Government under

the operational control of the senior United States Navy subordinate to SCAP, the COMNAVJAP or Commander, Naval Activities Far East (COMNAVFE) through the Shipping Control Authority for Japan (SCAJAP), an agency for supervision of merchant marine activities.

At the outset of the Repatriation Program it was determined that utilization of Japanese shipping alone, the remnants of the once proud Japanese merchant marine, would greatly prolong accomplishment of the over-all mission by as much as 5 or 6 years due to war maritime losses, inadequate wartime maintenance, and shortage of materials to be used in ship repairing. At the height of the program a maximum of 188 Japanese ships with a passenger carrying capacity of 200,000 were made available. Representations were made on 14 September 1945 to appropriate British, Soviet, and Chinese authorities with regard to the turning over to SCAP of Japanese shipping recovered in waters under their control. The British responded by turning over 14 ships totaling 23,000 passenger spaces. No ships were ever furnished by the Chinese or Soviets.

Hence a prompt augmentation of Japanese shipping from outside sources was necessary to avoid long delay in the realizing of the mass repatriation program. In early 1946 a decision was made to utilize United States ships (Liberty ships and landing ships tank); at the height of the program 185 such United States vessels (manned by Japanese after a brief concentrated training period) were employed in the program under SCAJAP supervision, thus providing 332,000 passenger spaces. It was through the use of these additional American furnished vessels that the tremendous movements of 1946 were made possible, including the repatriation to Japan during the 2 months of June and July 1946 of approximately a million persons!

In all repatriation shipping, coal was

provided by the Japanese Government. Oil, however, not being available from Japanese sources, was provided by the Allied forces loading the repatriates on the ships.

Reception Centers

The responsibilities of the Japanese Government included the operation of minesweepers to clear repatriation ports; the establishment, organization, and operation of repatriation centers; medical processing both aboard repatriation vessels and at reception centers in accordance with routine international medical quarantine procedures; and, finally, the demobilization of military personnel.

At the height of the repatriation program there were 14 reception centers in operation and during the peak period in the summer of 1946 for 2 successive weeks totals of repatriates in excess of 185,000 were processed in these centers. The United States Eighth Army through its regular tactical organization supervised operation by the Japanese Government of reception centers and rail transportation of repatriates from these centers to their homes.

Intelligence Activities

Intelligence activities in connection with the reception centers included both counterintelligence screening for Communist agents and interrogation of repatriates for positive intelligence. In the latter stages of the repatriation when the bulk of the returnees came from Communist Manchuria, or from Soviet-controlled areas, this aspect of the program became one of vital importance, often necessitating that all other processing at the reception centers be tailored to assist them in performance of their mission. Incidentally, the only United States personnel habitually in direct contact with repatriates were these Counter Intelligence Corps agents and G2 interrogators.

The Demobilization Bureau, which operated at the repatriation centers, was composed of former Japanese Army and Navy

officers (the only members of this class not purged from public office during the Occupation) who had maintained the personnel records for the Imperial Japanese Forces during the war and now systematically performed the paperwork of demobilization. Predictions made by these officers as to the number of Japanese in various areas of the Orient proved accurate to within 1 percent in almost every case where completion of repatriation allowed an accurate check. It is for this reason that we can predict with confidence the Japanese still unaccounted for in Communist hands. Due to the vast amount of valuable intelligence gleaned by this organization, it was supervised by G2 personnel. Many returnees who refused to talk to Allied interrogators revealed vital information to demobilization counselors.

From Soviet-Controlled Areas

As of 1 January 1947, 5,079,023 repatriates had been returned to Japan out of a total of 6,614,151 estimated to be overseas at the conclusion of hostilities. Approximately 1½ million repatriates remained to be evacuated, or about one-quarter of the total.

Thus 1 year and 4 months after V-J Day the status of completion of Japanese repatriation was as follows: United States-controlled areas—99 percent; Chinese-controlled areas—99 percent; Manchuria (including areas under control of Chinese Communist Forces as well as Nationalist Forces)—91 percent; British-controlled areas—88 percent; and Soviet-controlled areas—2 percent.

As of 1 December 1946, when mass repatriation had been virtually completed from all other areas, no Japanese had been repatriated from Soviet-controlled areas. During the period 1 October 1945-1 June 1946 repeated SCAP queries to the Soviets on this subject had remained unanswered. When negotiations were opened it soon became apparent that the instructions of the

Soviet delegation were to confuse, frustrate, and delay to the maximum so as to prolong the use of Japanese slave labor in Siberia. (With the first returnees, interrogation revealed that this labor was utilized to enhance the economic and war potential of the USSR.) All the dishonest or Fabian tactics so clearly unmasked in Major General John R. Deane's book, *Strange Alliance*, and the compilation, *Negotiating With the Russians*, were manifested during these negotiations. The deadlock, which might have lasted years, was broken in the end only by focusing the hard glare of publicity upon the Soviet motives through the SCAP-guided Japanese press. Finally, culminating more than 6 months of extended negotiations, pursuant to an agreement signed 19 December 1946, repatriation of Japanese from specified Soviet ports was begun at an agreed rate of 50,000 per month.

During the course of the above negotiations, SCAP-controlled shipping was offered to lift as many as 360,000 repatriates per month. The figure finally agreed upon was the maximum acceptable to the USSR, and was limited by the use of smaller Soviet ports such as Nakhodka, Siberia, and Maoka, Karafuto, (the ice-free port of Vladivostok, supported by the best available rail net, has never been made available) and the refusal of the Soviets to furnish any fuel oil for repatriation vessels (as was done by other Allied nations with respect to repatriation from areas under their controls). All shipping used in repatriation from Soviet-controlled areas was furnished and manned by the Japanese Government, and all costs incident to repatriation from the moment of embarkation on repatriation vessels was borne by the Japanese Government.

On 29 October 1947 a report on repatriation delivered in the Allied Council for Japan by the Deputy for the Supreme Commander and Chairman, Mr. W. J. Sebald, made an offer to furnish shipping

to lift as many as 160,000 repatriates per month; it was revealed that SCAP had available, using Japanese sources only, the shipping, fuel (coal), and reception facilities to initiate this comprehensive repatriation program almost immediately.

Mr. Sebald's report went on to comment on the following additional facets of the problem:

False propaganda being disseminated in Japan by Communist news agencies.

The deep interest of the Japanese people in this subject as evidenced by the many petitions and delegations requesting information concerning unrepatriated Japanese still held in Siberia.

The failure of the Soviets to give the names of prisoners held, or notices of deaths. An estimate of a 20 to 30 percent death rate was suggested.

Communist indoctrination of prisoners, the attempt to engender anti-American and anti-Occupation feeling, and the evi-

a suggestion that the ice free ports, such as Vladivostok, were available, coupled with appropriate publicity. The Soviets finally answered that the real difficulty lay in assembling repatriates by the Siberian railroads during the winter. (There was probably some truth to this as survivor accounts of the dispersal of Japa-



Captured on Okinawa, these Japanese POW's were home in 6 months.

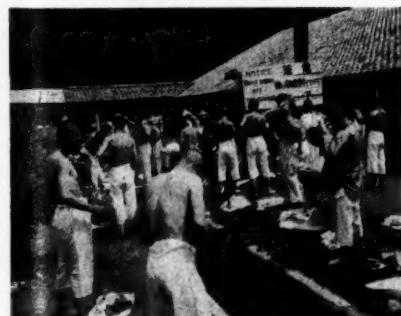
nese throughout Siberia and European portions of the Soviet Union in the fall of 1945 revealed how thousands had died when locked in unheated boxcars for trips of 6 to 15 days in temperatures as low as 20 degrees below zero.)

Communist Indoctrination Program

The offer to repatriate at the rate of 160,000 monthly was never accepted. Repatriation from Soviet-controlled areas limped along (with another even longer suspension in the winter of 1948-49) until the following summer when 95,000 highly indoctrinated or "brain-washed" prisoners were dumped into our hands. Fortunately, we were prepared for them by the earlier attempts in this direction.

With the return of the first repatriates from Siberia, Allied interrogators at the reception centers learned of the existence of the high-powered Communist indoctrination program. Subsequent events revealed the purposes of this program apparently to be to:

Provide potential candidates for the Japanese Communist Party (JCP).



These prisoners spent 5 years in slave-labor camps in Siberia.

dence that priority in repatriation depended on acceptance of this indoctrination.

The Soviets, without replying to the Sebald proposals for accelerated repatriation, suspended repatriation for the period 1 December 1947-1 April 1948 pleading icing conditions in the ports. SCAP replied with the offer of ice breakers and

Produce a few chosen men of high ability who after extensive training could act covertly as intelligence agents or full-time revolutionaries in Japan.

Demonstrate while en route to their homes their love of the USSR and hatred of the SCAP Occupation for worldwide propaganda purposes.

While the details of this program are beyond the scope of this article, its pattern, including theoretical classes and "self-criticism," was duplicated in the indoctrination given American POW's by the Chinese Communists during 1950-53. We had our warning, but took no preventive action based on it. Upon arrival in Japan the most highly indoctrinated of the prisoners (only a few shiploads) would engage in conduct of a propaganda nature as follows: locking arms aboard the vessels and refusing to debark; singing the *Internationale*; attempting to "convert" processing personnel at reception centers; and debarking from repatriation trains en route home and marching to the JCP headquarters in Tokyo to sign up.

To counter these actions SCAP, through the Education Ministry of the Japanese Government, set up a 5-day "debriefing" procedure at the repatriation centers designed to explain to the repatriate the changes that had taken place in Japan since the surrender, and the completion of repatriation from other areas many years prior to his return. Police and the Transportation Ministry made every effort to prevent contact between groups of repatriates and the JCP prior to the arrival of the individual repatriate at his home. Once home, the strong traditional Japanese family relationships served to inform him of the true aspects of communism in Japan, and enlighten him concerning the benevolent nature of the SCAP Occupation far better than any governmental agency could do. Many repatriates later apologized to General MacArthur for their actions both by letter and in the press.

Termination of Repatriation

In announcing the return of the 95,000 repatriates in the summer of 1949, the Tass release stated that all repatriates had been returned with the exception of war criminals.

A SCAP release at this time stated:

The best estimate available to General Headquarters, Supreme Commander for the Allied Powers, on the numbers of Japanese presently held in Soviet areas totals 408,729. This figure is based upon an estimate of 1,617,655 Japanese surrendering to the Soviet forces in 1945. With respect to all other areas from which repatriation has been completed, the estimates of the Japanese Government have proved remarkably accurate, differing at most only by a few thousand from the total number actually repatriated to Japan as counted here.

In event the radio Moscow announcement is a correct indication of Soviet repatriation intentions, it can only lead to the somber and saddening conclusion that some 313,000 Japanese captured by the Soviet military forces in their brief 1-week war of August 1945 have either died in captivity or will be held indefinitely in bondage to fulfill the selfish designs of the USSR.

It is sincerely hoped that this Moscow announcement proves unsubstantiated. For if true it presents to Japanese people, and most particularly to the bereaved relatives of Japanese who may never return from Siberia and for whom there can be no adequate solace, the shocking evidence of a fait accompli repudiation by the Soviet Government of all the humane and universally accepted standards of conduct which guarantee the right of liberty to the individual.

Such releases received the widest publicity throughout Japan, by newspaper, radio, and speech. It was realized that probably 200,000 of the missing 313,000

had died under the subhuman conditions of their captivity, but the Soviets were unable to admit this callous slaughter. In addition, 30,000 well-indoctrinated repatriates were later returned by the Chinese Communists. Nevertheless, from 40,000 to 100,000 Japanese prisoners are probably still held in Siberia. Unsubstantiated reports have been received of a plan to organize a Japanese liberation army (a high proportion of the missing are army officers) such as the Korean Corps formed during the 1930's in Siberia which played such a vital role in the formation of the North Korean Army.

Impact on Japanese Communism

In early October 1945 a SCAP directive ordered the release of all political prisoners, legalized the Communist Party which had been outlawed in Japan since 1932, and thus released Kyuichi Tokuda and Yoshio Shiga from solitary confinement for postwar leadership of the JCP. They were joined in January 1946 by Sanzo Nozaka who had spent the war cozily with Mao Tse-tung in Yen-an.

The following from Swearingen and Langer's book, *Red Flag in Japan*, depicts vividly the opportunity which awaited them:

Defeated Japan offered ideal conditions for the revival of a strong Communist movement. Her major cities, with the exception of historic Kyoto, lay in ruin. What remained of the nation's industry was disintegrating rapidly. Despair, hunger, and confusion inevitably followed total defeat. The Communists, who had consistently fought Japanese militarism and the ruling oligarchy, after the surrender constituted virtually the only political group which could convincingly disclaim any responsibility for the war and its consequences. They now appeared as the self-appointed champions of democracy.

To the average Japanese the Communist Party in the prewar years had been con-

sidered an agent of Japan's natural enemy, Russia, and a criminal organization. These men were hunted by the Kempitei and "Thought Police" and were known to be disrespectful of the beloved Emperor.

To clothe the Party in respectability and in consideration of their unique position in a United States occupied country, the Japanese Communist Party, in the years 1945-47, attempted to sever all surface and visible ties with the Soviet Union and to pose as a nationalistic reform party. In the words of Secretary General Tokuda at the first and second postwar Party Congresses:

Direct liaison with the Soviet Union will harm rather than assist our movement. . . . [Dec 1945]

At present we have no ties whatsoever with the Soviet Union. . . . I should like to state here that, in the future as well, our Party will never have relations with the Soviet Union. [Feb 1946]

This from the Party out of which in the period 1928-41 had been recruited the "Sorge Spy Ring"! This espionage effort had tipped off the Kremlin that Japan would head into Southeast Asia instead of Siberia with untold results in the survival of the USSR under the Nazi onslaught.

"The New Communism"

Coupled with the above public renunciation of the ties with the USSR, the Party endorsed Nozaka's concepts of the "lovable Communist Party" engaged in a "peaceful revolution." These tactics were patterned after the "agrarian reformer" line of the Chinese Communists and were designed to allow the Party to secure maximum support from Japan's confused peoples in their search for democracy. They played down the violent Communist revolution, stressed all matter of reforms, and were, in short, "all things to all men."

To an objective observer, however, all JCP policies in the "lovable communism"

period were designed to further the Soviet obstructionist purposes with regard to the Occupation. Admittedly, the traditional JCP opposition to the Emperor was played down as it was immensely unpopular among the rank and file of the Japanese people; but virtually all other policies were designed to divide, foster resistance to SCAP reforms, or infiltrate essential defense industries. The JCP agitators in the rural areas stated that the rice collection program favored the cities; they told the fishermen that the SCAP-controlled price was too low; and yet, in the cities the shortage of food that plagued a Japan deprived of her Empire was blamed on SCAP policies favoring the farmer and fisherman. The sweeping SCAP land reforms were attacked as not going far enough (although intra-Party communication expressed regret that they had not been able to sponsor the program).

The construction of jet airstrips was naturally attacked. And, most significantly, the primary targets of the Communist union and labor infiltration (under the liberal SCAP union laws patterned after those in the United States) were the Rail Transportation, Communications, Electric Power, and Coal Mining unions. Their power in these unions was so great that by 1948 they were given a capability of causing stoppages of from 50 to 80 percent in these key areas, a capability stopped only by the SCAP antistrike directive of 22 July 1948.

But all these policies promised something to someone, who being politically naive, was ready to believe. It remained for JCP support of Soviet repatriation policies to unmask the postwar Party as a tool of Soviet imperialism.

Soviet Secret Control

SCAP watched this situation and had ample evidence of Soviet direction of JCP activities. This liaison was maintained in three ways:

1. Directly by the Soviet Mission (the

Staff of the Soviet Member, Allied Council for Japan).

2. Through illegal traffic smuggled in small boats between Korea and Japan.

3. By repatriates from Siberia and North Korea and Manchuria.

To repeat, the Soviet objective in Japan was to obstruct the Occupation in general, and specifically the industrial rebirth and growth of the nation. Nowhere was this clearer than in the negative attitude of the Soviet Member of the Far Eastern Commission and the obstructionist nature of the Soviet proposals (made primarily for propaganda effect) within the advisory Allied Council for Japan. As to the Far Eastern Commission, which was supposed to control Occupation policy, inasmuch as unanimous consent was required before a decision could be reached, few were ever made. Instead, General MacArthur operated on the basis of interim directives from the Joint Chiefs of Staff which generally were confined to action already initiated within his own broad powers.

Silencing the Soviets

As to the Allied Council for Japan, Mr. Sebald's speech of October 1947 on repatriation marked the turning point. Henceforth, we were on the offensive. Twice the subject of repatriation was placed on the agenda, only to have the Soviet member walk out. Thereafter, whenever the Soviets criticized SCAP policies, as, for instance, when they "wept" over the oppressed state of labor, the skeleton of the unrepatriated Japanese in Siberia was dragged out. Eventually, the Allied Council meetings became perfunctory affairs, lasting only 1 to 5 minutes. Contrast this with the highly successful obstructionism and propaganda production of Soviet membership in similar bodies in Berlin and Vienna.

With the disappearance of their primary mission, General MacArthur in 1948 cut back the Soviet Mission personnel from

467 to 171, a severe blow to espionage activities.

Mr. Sebald's tactics were repeated by General MacArthur himself when the Soviets charged "police brutality" and "suppression of labor." Both were used as pegs to stress Soviet hypocrisy in enslaving Japanese POW's in Siberia.

Serious Defeats

After these serious defeats the Soviet Mission called upon the JCP, as faithful members of worldwide communism, to defend the Soviet repatriation policies. We can imagine the discomfiture of Tokuda and Nozaka as their nationalistic stand was shattered. Allied secret agents at high meetings of the JCP reported bitter debates on this directive, but the result was inevitable. As Sorge, the chief of Japan's prewar spy ring, had said, "Any Communist must be prepared to betray his country."

In late 1948 the JCP, slavishly obedient, began to echo the arguments of the Soviets for the delay in repatriation. But the politically naive rice farmers, fishermen, and urban labor members could figure out this one. How could the delay be SCAP failure to provide ships when all soldiers in his village from other areas had been returned 2½ years ago? This was an emotional issue and clever semantics could not obscure it. The SCAP releases of this period served to further inflame this emotionalism.

When the JCP members of the Diet voiced a resolution to censor SCAP for failing to provide ships for repatriation, the other members turned on them and suggested that they take up the matter with their Soviet masters. In 1950 a Diet committee officially indicted the JCP for obstructing repatriation and spreading false, traitorous lies on this subject.

By 1949 the JCP, which has swollen to 100,000 members under its "lovable communism" policies, began to lose support

in every quarter. As a result, Moscow turned on Nozaka as a scapegoat. In a Cominform blast (from Bucharest) in January 1950, his "soft" policies were attacked and the theory of "violent revolution" was once more required. The JCP henceforth devoted itself more and more to undercover work and virulent and anti-Occupation propaganda, including repetition of the unpopular repatriation theme.

These policies ultimately led to some anti-American riots widely interpreted in the United States as indicative of strength and yet, actually, sort of dying gasps of JCP effectiveness.

These policies, of course, we now know were in preparation for the Korean conflict. But their lack of success can be directly ascribed to the JCP's earlier defense of Soviet repatriation policies which revealed communism in Japan, not as a reform party, but as a tool of Soviet imperialism.

By the end of 1950, JCP support of the North Korean aggression had completed the job. The SCAP actions in purging the top 24 Communist leaders from office, and in banning *Akahata*, the Communist newspaper, were highly popular with the Japanese people and reduced the JCP to a status not much better than that of the American Communist Party today.

Summary

General MacArthur summarized the impact of Soviet repatriation policies upon communism in Japan on 17 September 1948 as follows:

Perhaps the most unsuccessful effort made anywhere by worldwide propaganda to instill communistic principles has been in Japan. Here, concepts leading to disorder, discontent, and ultimate chaos have made little headway. Despite frantic communistic efforts to achieve the contrary, Japan continues calm, stable, and well-ordered. The Communists and those who

adhere to their cause thus have a growing sense of frustration at their failure in Japan. If they had their way, they would repeat here the deplorable state of affairs which they have brought about in certain unhappy European centers.

There is a deep and natural resentment throughout Japan at what is generally regarded by all Japanese as a basic disregard of human and moral values in the retention in Russia, after more than 3 years following surrender, of half a million Japanese prisoners employed under shocking conditions of forced servitude in works designed to increase the Soviet war potential.

In sharp contrast, perhaps the most significant impact of the repatriation program as a whole was succinctly stated in the words of General MacArthur in December 1946:

In the transition from war to peace, the Japanese people, facing many complex problems, were understandably worried over the fate of their loved ones overseas. Vast numbers were scattered over the former Empire, many in remote areas, all without communication with the homeland. The prospect for early reunion seemed hopeless. Thousands of petitions from organizations and individuals bore eloquent testimony of the depth of their feelings.

Possibly more than any other one accomplishment, the prompt repatriation of their people has convinced the Japanese

nation of the sincerity of the Allied nations in their championship of the dignity of the individual and of his rights under democratic ideals.

Conclusion

Walter Bedell Smith in his book, *My Three Years in Moscow*, states: "Soviet policy is a marriage of Great Russian Imperialism and Communist Ideology."

The Congressional Report, "Strategy and Tactics of World Communism," points out that the writings of Lenin, Stalin, and Molotov all stress the subsidiary position of all other countries and their Communist Parties to Russia as the "main force of the revolution" and concludes "They can, therefore, sacrifice any Communist Party for tactical advantage." This article reveals just such a case.

What are the implications for the future? The parallelism in Germany's unrepatiated POW's is obvious. But the lesson to be learned is of far wider application.

All over the world, and most specifically in Southeast Asia and in the Middle East, communism is posing in the guise of nationalism. In all of these areas men of high integrity and strong will can repeat the success of General MacArthur and Sebald. By creation of situations of strength that place the Soviet policies in these areas under stress and pressure, they can ultimately strip the velvet glove of nationalism from the iron hand of Soviet imperialism.

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Impact of Atomic Weapons on Defense

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This article is in consonance with current instruction at the Command and General Staff College.—The Editor.

SO MUCH is currently being published about the impact of atomic weapons on the battlefield of tomorrow that a discussion of the impact (effects) of atomic weapons on defensive operations *Today* may seem rather prosaic. However, the military establishments of all the major powers have, or have pledged in their support, an atomic capability of this moment; and the mere possibility that such a capability could be exercised immediately appears to be reason enough for a critical look at our present prospects under atomic conditions.

Such a consideration, obviously, must be based on the tactical employment of our forces as presently organized and equipped. When we restrict ourselves to present organizations and equipment we also must face the cold hard fact that the bulk of our forces still have the mobility of the foot soldier. This rules out—for today—the truly fluid type defense with all forces constantly moving and never presenting an atomic target, which many believe so essential to survival in an atomic arena. How, then, has our defensive doctrine been modified to meet this atomic threat?

The threat of an atomic attack against defensive positions does not require major changes in the present basic doctrine on terrain selection and the organization of the defense. It does, however, place emphasis on dispersion, passive protective measures, employment of mobile reserves, and active security measures. Atomic weapons notwithstanding, there are still two basic types of defense: the position and the mobile. The position defense is that type of defense which depends for its success upon the ability of the defender to hold selected defensive localities and control the terrain between them—and, in the event of enemy penetration, to eject him by movement and fire.

In the mobile defense the emphasis is on the retention of an area, rather than on holding a line, since the defender expects to give ground and to destroy the enemy by vigorous counteraction. The use of atomic weapons will eliminate neither of these types of defense, but may make some changes in the organization of the ground. An infantry division cannot ordinarily be expected to conduct a successful mobile defense without substantial augmentation, to include at least an additional tank battalion, and vehicles—preferably armored personnel carriers—to motorize the infantry elements of the striking force. The requirements for maneuver room, powerful

The threat of an atomic attack against defensive positions places additional emphasis on greater dispersion, passive protective measures, the employment of mobile reserves, and on active security measures

striking forces, and the creation of targets large enough to justify the employment of our existing atomic weapons dictate that the conduct of a mobile defense will usually be a corps operation. Divisions within the corps will conduct either position or mobile defenses, as required, to force the enemy into an area or areas selected for the employment of the corps striking forces and/or atomic weapons.

Advantages and Disadvantages

If a terrain feature or an area must be denied the enemy, or must be held for other reasons, it may be necessary to defend by organizing the ground in front of the terrain feature or area, or even organizing the terrain feature or area itself. Under such conditions there is no other course of action than to *Defend*. Since the mission may require defensive operations under atomic conditions, it might be well to pause at this point and consider what advantages, if any, accrue to the defender. Under such conditions the defender:

Has a greater opportunity to develop atomic targets. Field Manual 100-31, *Tactical Use of Atomic Weapons*, states, "The defense may be designed to create profitable targets for atomic weapons." This can be interpreted to mean that the defense may be assumed *solely* for the purpose of making the enemy stop, mass,

and thereby present suitable targets against which atomic weapons may be profitably employed.

Has a greater opportunity to construct deep foxholes and emplacements with overhead cover in order to reduce his over-all vulnerability to atomic attack.

Is provided a greater opportunity to fight the battle from these prepared positions with less requirements to move large forces over exposed areas.

Is able to place a greater effort on concealment and camouflage.

May place the ground delivery means for his atomic weapons in great depth and in positions affording marked protection.

Normally has time to prepare detailed plans to include accurate surveys for firing positions thereby permitting rapid accurate delivery of his atomic and non-atomic fires on the attacker.

The major disadvantage to the defender under such conditions is that in the defense we are vulnerable, for once the attacker has located our force or position he may employ atomic weapons to destroy us; every effort must be made to reduce this over-all vulnerability to a minimum. A second disadvantage is that in order to execute counterattacks, the decisive element of the defense, it is necessary for the defender to move a portion of his force (reserves) from the protection of a well-prepared position to meet the enemy in the open and usually in an area selected by the attacker. A third disadvantage exists wherein the defender may be restricted as to his use of atomic weapons due to the proximity of his troops to enemy forces. Troop safety requirements alone may prohibit the use of atomic weapons under some conditions, or at least greatly restrict the yield of the weapons which can be employed.

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Let us direct our attention to some of the techniques that may be employed in defensive operations under atomic conditions. Any discussion of defensive operations normally starts with the following fundamentals as listed in Field Manual 100-5, *Field Service Regulations, Operations*: Proper utilization of the terrain, security, mutual support, all-round defense, defense in depth, coordinated fire plan, coordinated barrier plan, and flexibility.

These eight fundamentals of defense have proved valid in nonatomic warfare, and, lacking information to the contrary, it is generally believed that they will be valid under atomic conditions. The application of these fundamentals varies from situation to situation under nonatomic conditions, and for any given situation the application of these fundamentals will be varied by the individual commanders.

Under atomic conditions certain fundamentals may receive more, or less, attention and emphasis than heretofore, but again this will vary between individual commanders for any given situation. It is sufficient to state that the fundamentals remain unchanged but that the applications of these fundamentals will vary with the situation and with the commander conducting the defense.

Basic Problem

If we must conduct defensive combat under atomic conditions and the validity of our current fundamentals are considered true, what then is the major problem confronting the defensive commander? This basic problem can best be stated thus:

The goal of the commander who has been assigned a defensive mission when the enemy has an atomic capability is to have sufficient combat strength on the ground to cause the enemy to mass his forces and, at the same time, to employ his own forces in such a manner as not to present to the enemy a profitable atomic target.

Defensive operations should be relatively simple for any commander who has the answer to this 2-part problem. This dilemma, however, because of its controversial nature, has initiated and stimulated many a discussion as to which part of the problem becomes the most important in the defense: combat strength disposed so as to accomplish the mission or vulnerability to atomic attack (profitable targets for the enemy). Here are a few considerations worthy of mention.

Under conditions of atomic warfare the United States commander must make every effort to avoid concentrating his forces in such a manner as will present a worthwhile atomic target to the enemy. If, in order to accomplish his mission, a concentration of forces is necessary, he must make every effort to reduce to a minimum the period of time the concentration exists. The disadvantage of too much dispersion is defeat in detail—that is, the enemy, advancing with reconnaissance units or making company and battalion size attacks in several locations on a wide front, could advance deep into the defensive position, split the defending forces, and defeat the defender in detail without ever employing his atomic capability. All this might well be accomplished without the enemy presenting a target which is worthwhile for attack by United States atomic weapons. On the other hand, if the defender has his forces closely grouped, major portions may be destroyed or disorganized for an extended period of time by the use of atomic weapons by the enemy.

Since the enemy will not voluntarily employ massed formations for an attack under active atomic conditions, the defender must consider means to force concentrations of the enemy so that he will present a worthwhile target for the use of atomic weapons. Therefore, let us consider the first part of the basic problem—how to obtain sufficient strength on the ground to make the enemy mass. Some methods

which the commander may employ to force the enemy to concentrate his forces are:

1. Offer sufficient resistance on a position, making maximum use of all obstacles, to prevent a penetration of the position as long as the enemy employs widely dispersed attacks by relatively small units.

When the enemy masses sufficient force to effect a penetration of the position, employ atomic weapons against these targets presented and, depending upon the situation, terrain, and composition of opposing forces, either launch a limited objective attack with ground force units to exploit the effects of the atomic attack, or utilize the time gained by the resultant confusion among the enemy forces to strengthen the defensive position.

2. Allow the enemy to penetrate the position at an area previously selected by the defender.

This selected area will be lightly held initially by forces who will withdraw to previously prepared blocking positions to the rear as the enemy attacks. Adjacent areas will be held to canalize the enemy into the selected area. Through the use of blocking positions and barriers, the enemy will be forced to concentrate his forces into this selected gap in order to complete his breakthrough of the defensive position. When the enemy forces mass in the gap for a breakthrough, they then may be struck by an atomic weapon(s) in conjunction with a counterattack. The counterattack in this case may have the mission of restoring the original position, or of destroying the enemy force, or both.

3. When a position has been penetrated by an enemy force, the defender should exert pressure on the nose and shoulders of the penetration. This will force the enemy to mass additional forces before he can break out of the penetration.

At the time the maximum number of enemy units are in the penetrated area and in the most disadvantageous position (in

the open, tank hatches open, vehicles refueling, and units replenishing ammunition supplies), atomic weapons may be employed against selected targets in the penetration, followed immediately by a counterattack to destroy the remaining forces.

4. Careful planning and execution of a barrier system designed primarily to canalize the enemy force into an area where his destruction by atomic weapons is facilitated.

At army and army group level the rear barrier should be designed to facilitate the destruction of the attacking enemy as he is forced to regroup his forces.

There may be situations, however, in which the enemy may present profitable targets without being forced to do so and the commander must be alert for these situations and be prepared to employ, on call, atomic weapons against such targets. Although such situations may be the exception, only efficient intelligence activities will confirm target locations in sufficient time for them to be engaged with atomic weapons. In most defensive situations the commander must plan his defense to force the enemy to present a target which can be destroyed or neutralized by atomic attack.

Decide Balance Required

Because vulnerability of our forces is emphasized under atomic conditions, it is appropriate that defensive measures against such weapons be discussed. This is the second part of the commander's basic problem—that of dealing with the vulnerability of the defending force. Here again some guidance is provided by FM 100-5:

The commander considering defensive measures against mass destruction weapons must decide the balance required between dispersion and control and between protection and combat readiness. As in all military operations, this balance must include a calculated risk in order that the mission can be accomplished. Thus, an im-

proper balance which overemphasizes dispersion and protection may permit the enemy to accomplish his purpose with only a threat of using atomic weapons.

It can be seen from the above that the terms dispersion, control, protection, and combat readiness are in some disagreement and an explanation is deemed necessary.

Dispersion

Dispersion alone is not a cure-all for minimizing atomic casualties although it is agreed that all units must be dispersed and well dug in with a minimum number of personnel in the open at any given time. The commander must maintain a high degree of control. The number of forces or units the commander is willing to risk losing to a single enemy atomic weapon will naturally vary with the forces available, replacement units, and the mission to be accomplished. The battalion, or a combat force of similar size, is still considered to be the basic fighting unit. It is generally believed that with its present organization, the over-all capability of a battalion for defending terrain is not increased under atomic conditions and its operational area is generally the same as currently expressed in our field manuals under non-atomic conditions.

Dispersion, therefore, is gained between battalion size units rather than by any increased or excessive dispersion within the battalion. This being the case, the commander, by calculating the amount of damage to be expected from the enemy use of a single atomic weapon, can disperse his battalions sufficiently to preclude the loss of more than one battalion, or the equivalent thereof, from the enemy's employment of one weapon.

Although the psychological impact of atomic weapons has yet to be determined, it has been generally agreed that for planning purposes a battalion suffering less than 30 percent simultaneous casualties is still effective. It follows that the defender

might risk partial losses to 2 or possibly 3 battalion areas as long as the total damage to any 1 battalion did not reach or surpass the 30 percent instantaneous losses. It should be recognized, however, that there are circumstances which will require the concentration of units larger than a battalion to accomplish the assigned mission. For example, a commander may be required to occupy an island of resistance in the mobile defense. Since the minimum strength of an island of resistance should be of regimental or combat command size to accomplish the mission, the commander is risking greater losses than would normally be considered acceptable. In this case he accepts the risk that the enemy may attack with atomic weapons and that friendly losses may be more than the equivalent of one infantry, or tank, battalion.

The commander's problem, therefore, concerning dispersion is how to spread out his battalion defensive areas so that only one will be severely damaged for each nominal yield atomic weapon the enemy employs, and yet keep these battalion defensive areas close enough together that they can support each other by fire, prevent defeat in detail, and make the enemy mass to produce suitable atomic targets. This problem of dispersion applies to reserve units as well as to those assigned sectors of defense.

Control

The employment of the atomic weapon will have a marked impact on the control of tactical units in the field. This control problem concerns first, the headquarters itself, and second, the control means available within and between tactical units. All standing operating procedures at regimental and higher echelon must provide for alternate control headquarters and as many alternate means of communications as possible. The increased frontages and depths resulting from the increased dis-

persion mentioned here will place a tremendous burden on all communication facilities. As entire command headquarters may be partially or completely destroyed by one atomic weapon, an alternate command post must be planned for and be ready to operate without delay.

At the division echelon the division artillery headquarters is the most acceptable alternate command post which will preclude operation of these two headquarters in close proximity. A minimum distance of several thousand yards between these headquarters must be maintained so that both will not be destroyed by a single atomic weapon. To ensure that this alternate headquarters can function without delay, off-duty staff personnel of the division headquarters should sleep at the division artillery headquarters. Third priority division command post is the headquarters of the senior regimental commander in reserve.

Control within and between units in the field has not been solved. The increased distance between tactical units alone has taxed the present communication facilities available to these tactical units. With the advent of jamming equipment and other electronic devices, our present radios may be of questionable reliability at a time when great reliance has been placed on them as the sole means of communication. It is agreed that additional wire, teletype, and other semifixed means of communication may be employed. However, lower unit commanders may have to rely on plans and general directives, in lieu of specific orders, and may have to operate for prolonged periods of time without guidance from higher headquarters.

Protection

The degree of protection available to a defending force will depend on several factors. First, it would be highly desirable if the entire force could be well dispersed and completely below ground.

Therefore, time becomes most important and the defender will be most vulnerable during the early stages of the defense—the period during which the individual soldiers and the small units are digging in. The over-all effect of an atomic attack can be greatly reduced by the implementation of a few simple protective measures.

A second important factor is *weather* which has a marked effect on the amount of protection afforded the defender. Cloudy, wet weather will have an attenuating effect on the employment of atomic weapons and may even preclude their use. During periods of cold weather troops wear heavy protective clothing consisting of many layers which to a marked degree reduce the effects of atomic weapons. On the other hand, clear, warm weather is conducive to the employment of atomic weapons.

The third factor is that of *individual protection* which can best be discussed from the viewpoint of the individual soldier in the battle position. It has been determined by tests that a foxhole without overhead cover for the individual soldier takes 1.8 hours in soft digging, 2.8 hours in medium hard digging, and 5.6 hours in hard digging. Entrenching equipment, including mechanical devices such as earth augers and ditchdiggers, will enhance the over-all protection of tactical units by assisting in the accomplishment of digging in and reducing the initial high degree of vulnerability.

A fourth factor is the incidental protection that may be afforded the defender from the terrain itself. Within the limits of the situation, unit position areas should be chosen on terrain which provides natural shielding from atomic effects. Troops are more vulnerable to casualty producing secondary blast effects in cities and towns than they are in prepared positions in the open. In either case, concentration of troops should be the minimum required by the tactical situation.

The problem of protection is not only

one of the individual soldier, but has its impact throughout the entire unit and during the entire operation. Administrative support becomes a tremendous problem coupled with the desirability of keeping all individuals below ground at all times. One answer to this problem may be a series of communication trenches similar to those used in World War I and in Korea. Odd as it may seem, the forces of World War I on the battlefields of France were not extremely vulnerable to an atomic attack, for these type trenches did permit means of communication and administrative support and yet maintained a high degree of protection from an atomic attack for all personnel involved in such activities.

Additional protection may be obtained by all or any of the following measures:

Occupy defensive positions as late as possible (move reserve battalions into positions as required).

Prepare more blocking positions to be used by tactical units to provide protection, dispersion, and depth to the defense. Disperse units of the divisional reserve over larger areas and/or have battalions of the reserve occupy several prepared blocking positions.

Establish and strictly enforce all standing operating procedures concerning passive atomic defense measures.

Place maximum effort on camouflage and protection against thermal effects.

Occupy different blocking positions at different times (that is, flexibility in locating reserves).

Indoctrinate all personnel on the effects of atomic weapons.

Combat Readiness

Herein lies a major problem for the defender. Having selected a good defensive position and organized it to the best of his ability after considering his mission, area of operations, combat power of opposing forces, and enemy capabilities, the com-

mander must ensure that at least a portion of his force (reserve) is ready at all times to launch counterattacks against the enemy with, or without, the support of atomic fires. As in the offense, it is highly desirable that the employment of atomic weapons be exploited wherever possible—this is best accomplished by means of a counterattack. In order to ensure a rapid exploitation of atomic fires, the counterattack force must leave its dispersed and protected localities and concentrate sufficient mass to reduce the enemy penetration or destroy the enemy force. It should be obvious that this will be a major problem for any defender. The longer the defense, the greater the problem. Having prepared elaborate defensive positions to include bunkers and emplacements, individual soldiers and small units will be most reluctant to leave these protected areas to assemble and launch attacks in the open. Here, too, the balance between dispersion and combat readiness must be fully appreciated. In the past the reserves usually assembled in one area where control was maintained rather easily and the unit was generally in an over-all state of combat readiness. In an atomic war the commander can no longer assemble his reserves in one area but must, in order to provide them with some degree of protection, disperse them in several areas making control more difficult and their availability (combat readiness) questionable.

Counterattack Plans

In planning for the conduct of the defense all units must develop counterattack plans for meeting varied enemy penetrations of the defensive sectors—penetrations made with or without the use of atomic weapons by the enemy. It may be expected that preparation of division counterattack plans will receive detailed staff supervision from corps, since that headquarters will normally control the delivery of atomic fires. Corps must consider the

requirements for atomic fire support of the various division counterattack plans in the light of the over-all availability of atomic weapons and their delivery means and in relationship, of course, to the corps commander's desires as to the conduct of the defense. Under atomic conditions stress must be placed on the utilization of atomic weapons during the conduct of the counterattack. Terrain permitting, division and corps sectors may be deeper and wider to provide the necessary dispersion and to permit the use of atomic weapons within the defensive sector. As a result, blocking positions prepared by the divisions and corps will be in greater number and depth than under nonatomic conditions. These blocking positions will be closely tied in with all barriers which should be used to canalize the enemy into those areas where maximum casualties can be inflicted by both atomic and nonatomic fires. In addition to the conventional means used in barrier construction, prepositioned atomic weapons may be utilized to create obstacles to the enemy's advance.

A major penetration in a division sector resulting from an enemy atomic attack will usually result in the penetrated division containing the enemy through blocking action while the corps counterattacks with atomic weapons and mobile reserves. In view of the atomic fire support available, deeper enemy penetrations may be accepted by corps.

Artillery position areas, assembly areas, and the locations of reserves will normally be the most profitable target for enemy atomic weapons. Great effort must be expended during the defense to deceive the enemy as to the true location and dispositions of targets presented by friendly forces. Under conditions of atomic plenty any fixed disposition of troop units, regardless of the type of defense, becomes susceptible to defeat in detail through the enemy's employment of sufficient atomic weapons.

One of the most difficult tasks facing the defending force is the problem of making the enemy mass so that he will present a profitable target for the employment of atomic weapons. When the enemy has been slowed or stopped by one or more of the methods discussed previously, and is reorganizing to continue the attack against strong blocking positions, he is most vulnerable to an atomic attack which should be executed in conjunction with a counterattack by the reserves.

After atomic weapons have been employed the reserve or striking force should be adequate to destroy the remainder of the enemy force and/or restore the battle position. The counterattack force itself must assemble and concentrate only the minimum forces required to accomplish the mission and must ensure that this concentration exists for a minimum period of time—this will require meticulous timing and control. Such ground action is one means of exploiting the use of atomic weapons in the defense.

The best use of atomic weapons in defensive situations is their employment in conjunction with counterattacks. Several factors which must be evaluated for each area or target under the conditions existing at the time of consideration when selecting possible targets for atomic weapons include:

- Mission and importance of target.
- Availability of atomic weapons.
- Capability of delivery means.
- Location of target.
- Nature of target.

Predicted condition of target area after burst with respect to obstacles.

The decisive element of the defense continues to be the counterattack which may or may not be supported by planned, friendly atomic fires within the defended areas. Troop safety requirements alone may preclude the use of atomic weapons within the defensive sector.

Conclusion

As currently taught, the techniques of application of the fundamentals in non-atomic situations are completely valid and will remain so for the foreseeable future. This is true because the armies of all free nations are still confronted with the possibility of battle in localized or peripheral wars where neither side will utilize an atomic capability; recent historical examples of conflicts of this nature are Greece, Indochina, and Korea. Therefore, a complete working understanding of the proper application of the fundamentals of defense in nonatomic combat remains a prerequisite for the well-grounded commander and staff officer. Conversely, he must be equally prepared to gear the application of fundamentals to an entirely new set of conditions imposed upon the battlefield when an atomic capability is introduced by either or both sides. A car-

dinal consideration that must underscore all thinking, especially in an atomic era, is the avoidance of set rules and methods which will serve to limit imagination and initiative which are so vital to the successful prosecution of war.

The full impact and extent of changes resulting from the employment of atomic weapons requires continuous study. Therefore, it is of utmost importance that all officers carefully evaluate every situation considering the enhanced capabilities of both our forces and those of the enemy as a result of employment of these weapons and the limitations imposed on the employment of forces as a result of these weapons.

The principles of war and the fundamentals stemming from these principles remain unchanged. The over-all impact of atomic firepower is greatest in the application of the fundamentals, rather than in the fundamentals themselves.

The Army is vitally concerned in solving the problems raised by the introduction of nuclear weapons on the battlefield. Our forces in Europe and the Far East are already equipped with atomic artillery. We are training to be prepared to use these low-yield weapons on military targets in case the need should arise, and new organizations and tactics are being developed for the "atomic battlefield."

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The new missiles have almost unbelievable possibilities both for anti-aircraft and antitank purposes and for all kinds of other enemy targets. The potentialities of such missiles, if or when equipped with nuclear warheads of various sizes, stagger the imagination.

* * * * *

The Army should be capable of employing atomic firepower at the battle group level, of engaging and defeating a quantitatively superior enemy through superior tactical and logistics mobility, vastly increased firepower capability, battlefield intelligence, control and command facilities. This capability to employ the destructive effects of nuclear firepower, selectively, places the Army in the unique position of being able to defeat the enemy's land forces and control the sources of his landpower without destroying the foundations upon which a firm and lasting peace can be built at the cessation of hostilities.

Lieutenant General James M. Gavin

ARMY MEDICAL SERVICE IN KOREA

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The views expressed in this article are the author's and are not necessarily those of the Department of the Army or the Command and General Staff College.—The Editor.

THE extensive aid given to the people of Korea, as individuals and as a nation, is unique in concept and scope. However, the importance of the United States-United Nations (US-UN) contribution in Korea does not lie solely in its humane aspects. The real reason for examining some of the program's facets is that another peripheral war in any of the economically poor areas of the world undoubtedly will require a similar integrated program for the same humane, military, and political reasons. Never will it be enough to defend a weaker ally and leave her a ravaged country. Propaganda must be countered with deeds. The military battle will be only part of any war against communism. Equally, or even more, important will be our effort to eradicate disease and starvation; to lessen hardship and privation; and to lay the foundation for economic recovery.

When General Maxwell D. Taylor, Chief of Staff of the United States Army, became commander of the United States Eighth Army in Korea he recognized the very real need for an assistance program which would capitalize on the desires of United Nations military personnel to undertake various public service programs.

He wanted to give direction and official support to these voluntary aid projects, many of which already were under way. Thus the Armed Forces Assistance to Korea (AFAK) program was born. Several million dollars were allocated for use in initiating and/or completing approved projects conceived and carried out by the United Nations troops of Eighth Army.

This program was conducted separately from, but in coordination with, the much larger official assistance programs represented by such agencies as the military Korea Civil Assistance Command (KCAC) of the United Nations Command and the civilian United Nations Korean Reconstruction Agency (UNKRA).

If AFAK was modest in the sense of budgetary comparison, the returns, particularly the intangible, were proportionally higher. The reasons for this fact are that every AFAK project was conceived by the troops; each represented the voluntary provision of a service or construction of a facility of immediate importance to the Korean people, and every project was completed by troop labor with funds being used only to procure essential materials. It was the soldier doing something worthwhile for the civilians among whom he lived and for whom he had fought.

During the last 2 years there has been much effort on the part of the Army and certain civilian agencies to meet the needs which have developed during the postwar peace in Korea. However, the word "peace" should be modified because Korea is sup-

The military battle will be only part of any war against communism. In a peripheral war we must eradicate disease and starvation, lessen hardship and privation, and lay the foundation for economic recovery

porting a tremendous army in order to ensure that the armistice is preserved. Units of the Republic of Korea (ROK) Army are holding the line on and above the 38th Parallel with assistance of United States and other United Nations troops.

In conjunction with many other US-UN government agencies the Army is providing effective protection and realistic assistance in many broad fields of endeavor, including medical, for the Korean people. These farsighted efforts are highly important to the future stability of the ROK government, health, economy, and industrial growth.

Medical assistance provided to ROK by the United States Army Medical Service has alleviated conditions of incredible hardship and suffering. While the entire story of post-hostilities assistance inspires pride in what has been accomplished, the purpose of this article is to present a brief summary of some of the health conditions which were encountered and the medical corrective measures which were provided or encouraged.

In addition to the building assistance from the AFAK program, the United States Army provided directly or indirectly the following medical assistance:

Colonel Floyd L. Wergeland is a graduate of the Army Medical Service School, 1935; The Infantry School, 1939; the Command and General Staff College, 1941; and the National War College, 1954. His military service has been devoted to medical military training and education and includes assignments at the Medical Field Service School and Chief of the Education and Training Division for the Surgeon General's Office. He was on duty in Korea as Surgeon, Korean Communications Zone, in 1954-55 during which time he was deputy director of the AFAK program for medical. Later he was Surgeon, USAFFE-United States Eighth Army, with headquarters at Seoul. He is now assigned to the Advanced Operations Research Department, Command and General Staff College.

Emergency medical and surgical treatment.

Teaching and demonstration and on-the-job supervision of Korean doctors, nurses, and technicians to help them accomplish more.

Provision of supplies for existing medical facilities.

Technical assistance and guidance in building and equipping new and badly needed medical facilities.

Dispatch of special teams of doctors, nurses, and technicians throughout ROK Army hospitals to assist in diagnosis and treatment.

Medical care and teaching assistance received from the Swedish Red Cross Hospital and the German Red Cross Hospital.

Medical research projects to correct conditions unique to Korea, and to improve medical services in the conduct of modern warfare.

While the discussion which follows includes, in the majority, the activities of the Army Medical Service in relation to the above subjects, it must be understood that the United States Eighth Army, as a large and friendly force of United Nations troops, contributed in proportionately greater magnitude toward rehabilitation. All elements of the Army shared in this humane undertaking by contributing technical and matériel aid and technical supervision, by volunteering to work on their own time, and by giving generous individual cash donations again and again.

In addition to providing medical service to its own forces while halting the invasion of ROK, the United States Army assisted the ROK Army with its medical service in a technical advisory, medical supply, and medical equipment capacity. During periods of relative combat quiet United States Army Medical Service personnel found opportunities to assist many civilians and civilian agencies in Korea. Teaching and treating civilians ultimately

benefited the armed forces of the United Nations by improving environmental sanitation and by preventing epidemics by teaching and conducting immunization procedures, water purification, and insect and rodent control—all on a large scale.

The Army made every effort to direct AFAK medical assistance on an absolute parity for all Korean recipients. Through AFAK the United States Army aided with the construction, equipping, and supplying of many medical and public health facilities, both civilian and governmental. The Army provided, when needed, many

War II. In addition to the KMAG medical teams, members of the Korean Communications Zone Medical Service and Eighth Army Medical Service have contributed thousands of hours of teaching and advisory instruction to the ROK Army medical installations and facilities.

Shortly after the armistice the Army arranged to send medical teams of officers, nurses, and technicians through all the ROK Army hospitals, assisting the staffs in making diagnoses and carrying out long-awaited and necessary treatment, both medical and surgical. Long-term

MEDICAL RESOURCES AND GENERAL MEDICAL SITUATION IN KOREA

(From figures released by Korea Civil Assistance Command)

PERSONNEL RESOURCES IN 1955:

Population 21,500,000; 48,000 orphans (437 orphanages; 5.5 percent of population considered tuberculous; 98 percent have parasitic infestations; infant mortality very high; life expectancy early forties; 70 percent illiteracy).

5,900 doctors (a ratio of 1 to 4,376; in Seoul ratio is 1 doctor per 1,250 persons).

2,250 nurses, 930 dentists, 2,000 midwives, 1,500 registered pharmacists, and 2,000 herb doctors.

NOTE: Less than 3 percent of the medical personnel here mentioned are highly qualified. There are currently 127 Korean doctors training in foreign countries. Korean training is mostly didactic and there is need for practical training.

types of specialized technicians as well as much technical supplies and equipment. Medical equipment maintenance technicians have been provided to identify, repair, and install medical and laboratory equipment. A number of Army medical supply groups have been used to identify, inventory, and set together equipment which arrived in Korea from the various United Nations countries under the UNKRA program.

Army medical advisory members of the Korea Military Advisory Group (KMAG), a United States Army command, have been on duty throughout Korea since World

cases which were expensive to the ROK Army were given special attention. By this effort remarkable recoveries were made possible with a resulting reduction of several thousands of patients.

Consistent with this diagnosis and treatment assistance, there was effective teaching by demonstration and by the on-the-job supervision of Korean doctors, nurses, and technicians. This service has continued to the present and certainly will go on while the Army has adequate medical personnel in Korea. A continuous medical consultation program has been conducted in civilian hospitals at Seoul and

elsewhere to the limit of availability of Army Medical Service personnel.

The ROK Army has been assisted with professional nursing advice. The immediate result of this advisory effort is the institution of professional training courses for nurses in some of the best and largest ROK Army general hospitals at Seoul, Taegu, and Pusan. Korean nurses are eager to learn and nurses from outlying hospitals rotate through these designated teaching hospitals. United States Army Medical Corps nurses who are effective teachers have been employed for training technicians in many of the phases of medical and surgical treatment activities. This advisory effort in Korea is expected to result in progressively better professional and practical nursing care in the ROK Army. Without good nurses and technicians as teachers in the ROK Army, it would be rather difficult to expect the degree of success necessary to obtain or maintain first-class medical care and treatment in Korea by the standards of western medicine.

The Swedish and the German Red Cross Hospitals take care of Korean civilian charity cases at Pusan. Both of these outstanding teaching medical units are attached to the United States Eighth Army for logistical support. To supplement their own staffs these hospital units employ Korean doctors and nurses whom they train in taking care of Korean civilians on inpatient and outpatient services.

The German Red Cross Hospital now has a formal and effective 3-year training program for nurses. It trained 45 student nurses in the first 2 classes and added another class of 25 in April of this year. It is anticipated the Scandinavians will enlarge their formal programs for technicians, nurses, and doctors when they staff and support a newly built 450-bed medical educational center at Seoul in January 1958.

There have been many special AFAK construction projects designed to provide clinics, hospitals, and medical facilities to serve a specific community or the organization which sponsored the project. This is not news to the missionaries with whom Army personnel have had the privilege to work so successfully. Valuable assistance to United Nations forces resulted from the many years of fine and devoted work of Christian missionaries

FACILITY RESOURCES

- 7 medical schools:
- 1 dental school
- 22 nursing schools (one is a post-graduate nursing school conducted by KCAC)
- 8 pharmaceutical schools
- 11 public health centers (one for each Province)
- 552 public health centers (dispensaries)
- 1,872,000 infants and mothers received prenatal and postnatal care by these facilities in 1955
- 10 tuberculosis hospitals with a bed capacity of 3,580
- 2 mental hospitals
- 12 leprosaria with a capacity of 14,000
- 21 leper colonies with a capacity of 3,423
- 45 percent of health budget goes for leprosy. Estimate of cases varies from 24,000 to 200,000
- 3 preventoria with a capacity of 519

who preceded the United States Army Medical Services in Korea. Many of the missionaries are highly regarded representatives of the United States. Some are former active members of our Army who now are in different working clothes. Without assistance and information available from the various local missionary agencies on the spot in Korea, a great deal of Army money, materials, and effort might have been squandered uselessly. The missionaries know the Koreans, their

customs, their thinking, their local politics, and, most important, their real needs. They are able to convert those genuine needs into terms the Army can apply.

Although many AFAK projects have been completed, a large number are far from finished. Much good has resulted and more will become evident long after the current projects are completed. It will

(3) Cost of hospitalization (civilians) @ \$12.44/day 591,322.96
 (4) Cost of medical supplies (civilians) hospitalized 109,803.54
 (5) Cost of outpatient treatments (civilians) @ \$1.75/treatment 390,917.50

Dollar values stated are established by official publications and directives.

	Man-hours of instruction to ROK Army	Man-hours professional service to ROK Army	Man-hours professional service to Korean civilians	Surgical operations for Korean civilians	Laboratory procedures for Korean civilians	Outpatient treatment of Korean civilians in Army Hospitals
1954—	36,334	81,018	127,906	12,435	66,467	184,624
1955—	92,267	6,558	11,464	1,779	14,659	38,758
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	128,601	87,576	139,370	14,214	81,126	223,382

Note: Figures for KComZ and Eighth Army in Korea have been consolidated.

take years to evaluate the full humanitarian and health benefits, but Americans can be grateful for the contribution our Armed Forces have made worldwide to the human values of Christianity and democracy. More especially, the Army Medical Service peacetime function in a place like Korea may, to a large extent, be classified as military missionary medical work.

A list of some of the AFAK projects constructed for medical purposes alone is impressive:

a. Hospitals 53; dispensaries 15; health centers 13; and clinics 11.

b. Cost of material for medical construction, AFAK \$1,220,581.00

c. Cost of AFAK medical supplies and equipment 520,786.00

d. Medical assistance program (teaching and treatment)

(1) Value of professional services to ROK Army 250,724.07

(2) Value of professional services to Korean civilians 373,811.60

The figures above briefly outline some estimate statistics developed from United States Army Medical Service consultation and teaching services to the ROK Army.

If to these figures is added the continuous on-the-job training which always has been conducted in United States Army Hospitals for Korean personnel who are employed (direct hire) by the United States forces, and for the Korean Army personnel attached to United States Army Units (KATUSA) for training and duty, the total is larger by many more thousands of teaching hours.

The information in preceding paragraphs represents extracurricular duties. As regular duty, during the conflict, United States Army Medical Service personnel treated about 90,000 military casualties as well. Currently there is an approximate daily average of 400 to 425 American United Nations patients in the United States Army Hospitals in Korea, exclu-

sive of several thousand troops who are outpatients each day.

Army medical personnel in isolated or war-ravaged areas have contributed their individual professional services as well as personal funds to the care of civilians, especially women and children left destitute and crippled by war.

The United States I Corps stationed in the Oujongb'u area raised a special trust fund of \$75,000 which is managed by the I Corps surgeon as chairman of the board. This trust fund was established expressly to take care of children maimed by war or accidents incident to armed forces activities north of the Han River. The medical section of Headquarters Korea Communications Zone (KComZ) collected approximately \$2,000 from the Headquarters Command of KComZ. KComZ was deactivated in June 1955, and the area and mission turned over to the United States Eighth Army. With this money, plus \$250 from the Surgeon General's Office, United States Army, and the professional assistance of the Presbyterian Hospital Mission at Taegu, operations and artificial limbs have been provided for 40 amputee

artificial kidney, early *debridement* of wounds, helicopter evacuation in the combat areas, treatment of shock, treatment of acute hemorrhagic fever, treatment of compound fractures of the long bones, acceleration of wound healing, treatment



US soldiers administer blood transfusion as Korean woman doctor observes.

of burns, prevention and treatment of cold injuries, treatment of various dysenteries, treatment of acute infectious hepatitis, the treatment of venereal diseases, and the treatment of lower nephron-nephrosis.

PROGRESS DURING RECENT YEARS

Koreans will soon be able to produce about 20 percent of their biologicals for immunizations.

People now insist upon immunizations for smallpox, typhus, and typhoid.

There has been no smallpox in the last year, and typhoid is down markedly.

The Korean Government plus AFK, KCAC, UNKRA, ICA, and AFAK have expended \$32,704,000 for public health assistance, which is in addition to what has been done by 53 voluntary agencies, 45 of which are organized into KAVA (Korea Association of Voluntary Agencies).

patients at the Home for Disabled Persons at Taegu.

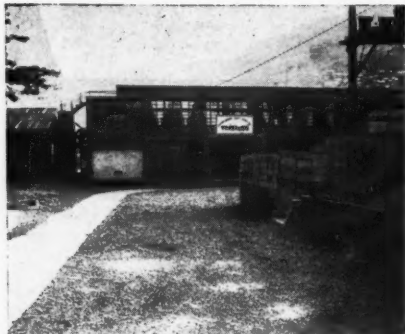
The majority of the medical research projects carried out by the Far East Command since the Korean conflict have been physically conducted in Korea. Medical, surgical, and laboratory research work in Korea has brought about much improvement in such procedures as the use of the

In the field of preventive medicine, Korea has served as a large research laboratory for all United Nations military forces stationed there as well as for the Koreans. Practical methods have been developed for insecticide dusting; spraying for mosquitoes and other insects; miticiding clothing; killing rodents; purification of water; shipment, handling, and protec-

tion of perishable foods; handling and disposal of garbage and refuse; sewage disposal; and chemical fertilization.

The over-all experiences and research in Korea during and after hostilities are unique in the history of the United States Army Medical Service. Whether one is a missionary, medical officer, dietitian, psychologist, orthopedist, hospital administrator, internist, economist, industrialist, politician, or a specialist in preventive medicine, the land of Korea presents a challenge to intelligence, patience, curiosity, and ingenuity.

There is opportunity in medical areas



Pusan Children's Charity Hospital is maintained through the aid of AFAK program.

to teach in medical schools, clinics, and hospitals; to perfect techniques in the orthopedic and acrylic eye laboratories, appliance shops, exercise halls, chemical laboratories, blood banks, and dispensary services; treat lepers, disabled persons, and many cases with tuberculosis or parasitic diseases; and to assist the already overworked medical missionaries.

While the Army Medical Service is in Korea, many kind professional acts and medical projects will continue for the Koreans. These will extend from the front-

line north of the 38th Parallel to Pusan. The medical personnel are enjoying it, too. When medicine and some medical officers' time is provided by the United States Army, it is paid for by the reader and the author indirectly as taxpayers. But there isn't any anti-Communist work



Emergency medical aid for Korean children is an important part of medical assistance.

which gives better and more certain dividends.

Americans, especially United States Army personnel in Korea, hope to see Korea, a small country, grow in education, health, national posture, and self-sufficiency to emulate the smaller, progressive countries of Europe, such as Sweden.

As Americans of the Army Medical Service have helped Koreans and Korean missionaries build and supply dispensaries, schools, churches, and hospitals, they have added a new value to their own lives. Although direct assistance by the Army Medical Service in Korea will diminish during the months and years ahead, the work which the service has done in the past will help ensure continued medical progress and will be attested for all time by health standards never before known in that Republic.

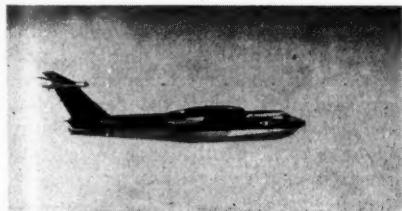
MILITARY NOTES

AROUND THE WORLD

UNITED STATES

Successful Flight Test

The Navy's *P6M-1 Seamaster* (MILITARY REVIEW, Mar 1955, p 65 and Aug 1956, p 72) has successfully completed its first test flights. The minelaying *Seamaster* has a rotary mine door in the hull where mine stores or camera pod can be interchange-



Successful test flight of Navy's *Seamaster*.

ably installed. Hydroflaps, on both sides of the lower rear hull, are used individually as rudders or as a brake when opened together.—News release.

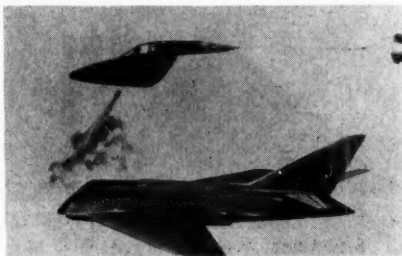
Tests for Cargo Plane

The *C130A Hercules* (MILITARY REVIEW, Apr 1955, p 67 and Nov 1955, p 67), 62-ton turboprop Air Force cargo and troop carrier, completed a 2-day continuous test flight recently. In other tests for arctic operations, various protective materials are overlaid on the fuselage of the plane and tested by friction with ice to determine the

best "ice armor" protection against ice mounds common to landing fields in the arctic regions. The *Hercules*, which is capable of lifting up to 20 tons, is scheduled to join the Tactical Air Command this year.—News release.

Ejectable Cockpit

The development of a standard ejectable cockpit capsule was announced recently. The capsule design will standardize the modern aircraft cockpit and is expected to have many uses. In addition to providing a recoverable escape device for the pilot and



Cockpit capsule used for emergency escape.

the airplane's electronic equipment it will be interchangeable between aircraft. It is expected that this concept will permit the use of the cockpit capsule as an operational flight trainer either when attached or de-

tached from the rest of the aircraft. Jet-tisoning of the cockpit can be accomplished by either manual or automatic means. A small parachute is used to slow down the cockpit after it is detached from the main airframe, and an altitude control releases the main parachute system. The capsule will float when landing on water, and will be equipped with stabilizing and retrieving equipment.—News release.

Wingless Plane

The *Aerodyne*, a wingless fuselage lifted and propelled by an internal lift-inducing propulsion system, has successfully completed flights as a laboratory model. In the



Aerodyne model hovers in demonstration.

Aerodyne, the air is sucked in through an opening in the top and expelled by high-speed fans past a set of control fins in the belly of the craft. When these fins are tilted backward, the craft moves forward. To move it to the rear the fins are tilted forward. The *Aerodyne* is able to hover for takeoff and landings. Since this type of craft is wingless, and is, therefore, not sub-

ject to the drag caused by heat generated in the wings as in a conventional aircraft, it is under continuing study as the possible forerunner of jet planes of the future.—News release.

Atomic Electricity

A method of converting atomic energy directly into alternating electric current has been developed. This method is said to be intended for production of alternating electricity in commercial quantities. In this system, the use of steam from water heated by a reactor is eliminated. The electrically charged particles, such as electrons and protons, emitted by the reactor are grouped into streams by electromagnets. The streams are reversed intermittently and current is induced in secondary coils much as it is in an ordinary transformer.—News release.

Fire Control System

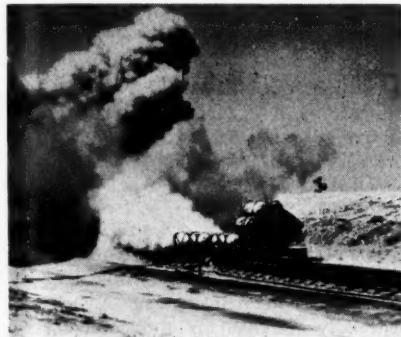
The Navy's new Aero-13 fire control system is designed for all-weather blind flying and allows the detection and destruction of enemy aircraft at night and under no-visibility conditions. Exhaustively tested and evaluated during the past 2 years, the Aero-13 will be installed in the Navy's *F4D Skyray* all-weather supersonic fighter-interceptor.—News release.

Commercial Reactor

The United States first atomic reactor devoted solely to industrial research went into operation recently. Sited in a research laboratory in south Chicago, the 50,000-watt plant is also the first nuclear facility to be put in operation in a densely populated area. The reactor is fueled by $2\frac{1}{2}$ pounds of Uranium 235 in the form of uranyl sulphate dissolved in water. It is completely self-contained, confining all radioactivity within a triple shield. It does not produce electricity, but is designed exclusively for the production of neutron and gamma ray radiations.—News release.

Rocket Sled

Designed to carry an exposed part of an aircraft or missile through a simulated rainstorm at supersonic speeds, a rocket sled of the Air Research and Development Command has reached a speed of 1,560 miles an hour. The sled, equipped with 12 rocket bottles, reaches an acceleration of 25 times the force of gravity, and



Rocket test sled speeds 1,560 miles an hour.

completes its run on a 10,000-foot track in a little more than 9 seconds. It is stopped in the last 2,000 feet of travel by a water brake. Previous tests of rain erosion on exposed aircraft and missile parts were accomplished by firing test samples through a water spray with a 20-mm gun. With the rocket sled, whole sections can be mounted and run through a spray equal to approximately 8 inches of rainfall per hour. Telemetering equipment is built into the sled and a miniature radio transmitter beams information to a recording center while the sled is in motion. Special cameras which photograph the sled during high-speed runs are capable of exposing film at a rate of 7,000 frames per minute.—News release.

New Bombing Method

A newly developed bombing method called "toss bombing" is now in use by the Air Force. The system calls for the pilot to release his bomb while the plane is

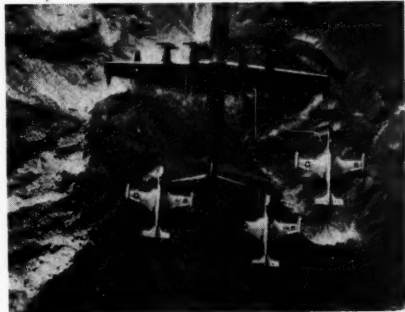
climbing. It is not as accurate as dropping the bombs from level flight, or the "skip" and "dive" methods of World War II, but is considered particularly adaptable to the aerial delivery of nuclear weapons.—News release.

Mobile Mortar Weapon

A mobile mortar weapon recently announced by Army Ordnance mounts a 4.2-inch mortar on an armored personnel carrier. A 25 million-dollar contract has been made for the immediate construction of the self-propelled mortar and personnel carrier.—News release.

Multiple Refueling

The Navy's *Tradewinds* *R3Y* tanker is capable of multiple refueling of jet fighters in flight. It has succeeded in refueling three *Banshee* *F2H* jets at the same time. The *R3Y* is a new intercontinental airliner powered by gas turbine-propeller engines developing 5,500 horsepower each. Its contrarotating propellers give good takeoff, low-speed and low-altitude per-

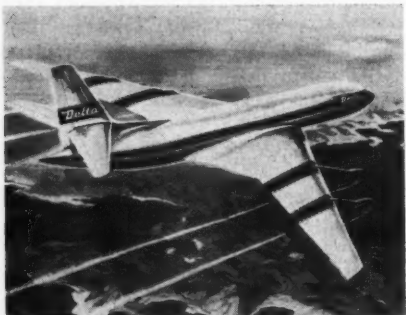


R3Y tanker refuels three *Banshees* in flight.

formance, and are reversed for braking action during landings. The *R3Y*-2 model of this plane is known as the *Flying LST*. The *Banshee* *F2H* has been operational in the Navy for several years, and is modified as a day-fighter, night-fighter, photo-reconnaissance plane, and long-range, all-weather interceptor.—News release.

Fast Airliner

The *Golden Arrow*, claimed to be the world's fastest airliner with a top cruising speed of 609 miles an hour, is planned for delivery to major airlines in late 1959. The airliner is a medium-range jet transport, and derives its name from its commercially unmatched speed and from its exterior color, which will be gold rather than the conventional silver. The four



Fast *Golden Arrow* will be golden in color.

CJ-805 jet engines which power the *Golden Arrow* are the commercial version of the military type *GE-J79*. This engine is said to produce more power per pound of engine weight than any other engine of comparable size.—News release.

Supply System Change

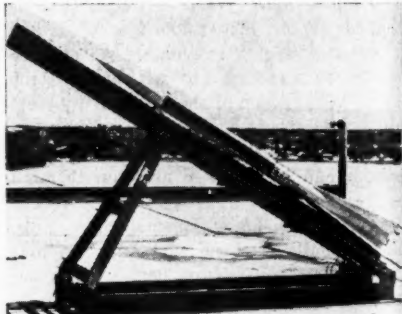
A new logistical concept called the Modern Army Supply System (MASS) is undergoing field tests by the United States Seventh Army in West Germany. This system provides that supplies will be flown or shipped direct from bombproof storage points in the United States to forces in the field, doing away with the necessity for most rear area supply bases overseas. Stock control points in the United States will be equipped with "electronic brains" and supplies will be ordered by radio utilizing a simplified code. It has been estimated that deliveries will be speeded up as much as 600 percent over the old system.—News release.

Air-to-Air Missile Tested

In a recent simulated air defense test a *GAR-1 Falcon* air-to-air missile (MILITARY REVIEW, Jul 1955, p 65) fired from a jet interceptor successfully sought out and destroyed an unmanned *B-17* drone target. Previously the *Falcon* had only been tested under ideal conditions. The air-to-air *GAR-1* weighs slightly over 100 pounds and is approximately 6 feet long. It is powered by a solid rocket propellant and is electronically fired and guided. It is designed for underwing or pod installation and can be carried in quantities by interceptor aircraft. After it is launched the *Falcon* automatically "homes" on the target.—News release.

Weather Rocket

The *Asp* high-speed atmosphere sounding rocket has been successfully tested in full-scale field firings. The rocket was especially designed for studies of the upper atmosphere and will be used to gather weather information, and study cosmic ray emanations and other geophysical



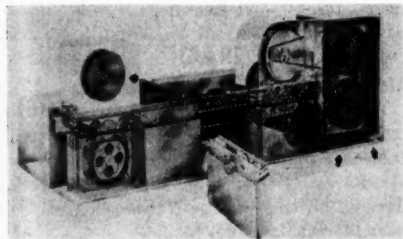
Weather rocket on rack ready for launching.

data. The *Asp* is launched from simplified portable racks and may be directed vertically to attain high altitudes or horizontally to achieve long range. The specially instrumented head of the rocket contains tiny high frequency radio transmitters from which observed data is sent back to earth. A system for receiving and re-

cording the scientific data on the ground was developed concurrently with the development of the rocket.—News release.

Film Processing Machine

Successful development of a fully automatic 16-mm film processing machine was recently announced. The processing ma-



16-mm film processing machine is portable.

chine, which has been designated the *F-310*, is completely portable, self-feeding, and is said to be extremely fast in operation.—News release.

Weapons Test Sled

A recently developed weapons test system utilizes a high-speed rocket sled to assess the effects of aircraft weapons. The system uses a 2,000-foot-long track and is known as the "damage potential range." Various aircraft weapons are attached to the rocket sled and fired at a target at the end of the track while the sled is traveling at high speed. The combined speed of the sled and weapons is expected to go as high as four times the speed of sound, but the system can measure accurately the effects of impact upon the target of any combination of speeds.—News release.

Construction Plans

Vessels now under construction for the United States Navy include 14 wooden-hull utility boats, 25 minesweeping launches, 2 new type minesweepers and a mineplanter. Total cost is approximately 3.5 million dollars. The minesweeping launches are capable of being carried

by larger vessels from which they are launched to carry out assault minesweeping in shoal water, and are powered by gas turbine engines. The two minesweepers are prototypes of a new class of wooden-hull, nonmagnetic ships planned for use in protection of harbors and coastal areas. They are single-screw vessels with diesel propulsion and are especially designed for mass production. The mineplanter, designated the *YMP-3*, is steel-hulled with twin screws and is planned for transfer to another nation under MDAP.—News release.

Marine Helicopter

The *HOK-1* helicopter, winner of a Navy competition for general utility helicopters, is now in volume production for the Navy and is in use by combat units of the Marine Corps. The *HOK-1* is powered by a 600-horsepower *Wasp* engine. It can carry four passengers as a personnel transport or two litter patients and a medical attendant as an aerial ambulance. Its equipment includes an external cargo hook for suspending bulky cargo beneath the fuselage, a power-operated hoist for rescue operations, blind-flying instruments, cold-



Marine helicopter bear paw landing gear.

weather operating equipment, dual float and bear paw skid landing gear. Its maximum speed is approximately 110 miles an hour and it has a range of 250 miles.—News release.

Altitude Record

An *Aerobee-Hi* rocket (MILITARY REVIEW, Jul 1955, p 64) has set a world altitude record for single-stage rockets by rising to an altitude of 163 miles in a recent test. It attained a speed of 4,435 miles an hour. The highest previous altitude reached by a single-stage rocket was 158 miles, reached by a *Viking* rocket. The *Aerobee-Hi* is the largest rocket which will be used by the United States during the next year for making direct scientific measurements in the upper atmosphere. The *Aerobee-Hi* is 23 feet long and 15 inches in diameter and is a boosted rocket. It utilizes a Jato type solid propellant booster which falls away after about 3 seconds of flight following which the main 4,000-pound thrust liquid rocket motor takes over.—News release.

DENMARK

Photo Planes

The Danish Air Force will get 10 *RF-84 Thunderflash* jet planes equipped for photographic reconnaissance. The *Thunderflash* is a specialized photo-reconnaissance version of the *F-84F Thunderstreak*. The conversion features the movement of the intake from the nose of the airplane to a position in the wing roots, and a lengthening of the nose to accommodate automatic and remotely controlled camera and comprehensive radar equipment.—News release.

NATIONALIST CHINA

Military Justice

A new code of military justice, giving defendants in Nationalist China new rights, will go into effect on 1 October. The new code provides, among other things, that defendants charged with offenses that could incur a penalty of more than 5 years in jail are provided counsel if they do not engage counsel themselves. Defendants may now appeal within 10 days after being sentenced, whereas formerly verdicts were approved by head-

quarters and were considered final. The new code also provides that verdicts now must be approved by the Ministry of National Defense instead of by the President of the Republic, and trials by military tribunals are to be open to the public except when they relate to secrets of national defense or the reputation of the armed forces.—News release.

IRAQ

Aid to Air Force

Two British *Heron* transports (MILITARY REVIEW, Jun 1956, p 72) have been ordered by Iraq for duty with the Iraqi Air Force. Delivery is expected to take place later this year.—News release.

SOUTH AFRICA

Long Tunnel

A 7½-mile railway tunnel, the fourth longest in the world, is to be driven through the Hex River mountains in South Africa's Cape Province. The construction of the tunnel is expected to take a number of years to complete, and the original estimate of the cost is 3 million dollars.—News release.

JAPAN

Floating Mines

Floating mines still constitute a menace to sea navigation in the Sea of Japan. Supposedly set adrift from minefields off the coast of North Korea, the mines bear Soviet markings. They have varied in size from 990 pounds to 120 pounds and were most numerous during the winter of 1954. In that year more than 100 mines were reported, while 75 were reported in 1955.—News release.

SWITZERLAND

Atomic Fuel Pact

Switzerland and the United States have agreed on a plan providing for the sale to the Swiss of nuclear fuel for atomic power reactors. The plan is similar to the

recent agreement under which the United States plans to sell Australia up to 500 kilograms of fuel containing 20 percent of the fissionable isotope, Uranium 235. The two nations will also be permitted to purchase up to six kilograms of fuel enriched by 90 percent U 235 for fueling a materials testing reactor. The 20 percent atomic fuel is planned for use in experimental atomic and in research power reactors.—News release.

USSR

Helicopter Records

The Soviet *Yak-24* has established two world records for helicopters. It has reached an altitude of 5,082 meters with a load of 2 tons, and an altitude of over 2,000 meters with a load of 4 tons. Known as the *Flying Boxcar*, the *Yak-24* is said to be the largest aircraft of its type in the world.—News release.

Railway Equipment

The Soviet Union has contracted to deliver India 15 broad-gauge locomotive boilers at a cost of about \$182,000. The Soviets agreed to an extremely early date for delivery of the railway equipment which is part of India's 6 million-dollar expansion of railway service.—News release.

Transports for Sale

According to published reports, the Soviets are offering their *Tu-104*, commercial version of the *Badger* medium bomber (MILITARY REVIEW, Jun 1956, p 71 and Jul 1956, p 71), for sale at a price of \$1,200,000. Maximum speed is quoted at over 600 miles an hour, cruising speed between 495 and 560 miles an hour, and a range of 3,100 miles.—News release.

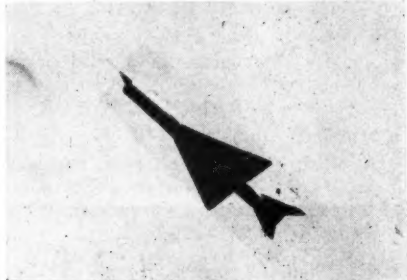
Atomic Weapons

The Soviet Union will deliver atomic weapons to the East German Army later this year according to recent information. The first shipment of six atomic cannon

and other atomic artillery is scheduled for arrival in Thuringia, East Germany, in October. Training in atomic warfare for a group of East German officers is reportedly being conducted in Soviet Kazakhstan.—News release.

New Aircraft

New aircraft displayed at a recent air show in Moscow included 3 delta-wing interceptors, 2 advanced type *Farmer* day-fighters, and 2 improved *Flashlight* all-weather fighters. The *Farmer* is a single-jet, single-seat day-fighter first displayed in the Soviet air show in 1955, and is believed to be an improved version of



Soviet delta-wing experimental jet plane.

the *MiG-17*. The *Flashlight* all-weather fighter possesses exaggerated swept-back wings and is believed to be an improved version of a twin-jet night- or all-weather fighter unveiled last year.—News release

Armed Forces Cut

The first increment of Soviet troops has been withdrawn from East Germany under the USSR's recently announced demobilization plan according to a report. The Soviet plan called for a cut in armed forces of 1,200,000 men during the next year, including more than 30,000 Soviet soldiers now stationed in East Germany. Soviet forces stationed in East Germany are estimated at 265,000. The number of troops included in the announced withdrawal was not indicated. Other cuts in military forces by Soviet bloc nations in-

clude North Vietnam, 80,000 of which 50,000 have already been demobilized; North Korea, 80,000; and East Germany, 30,000. Announced reductions in armed forces by Soviet bloc nations during the past year included the USSR, 640,000; Poland, 47,000; Czechoslovakia, 34,000; Hungary, 20,000; Romania, 40,000; Bulgaria, 18,000; and Albania, 9,000.—News release.

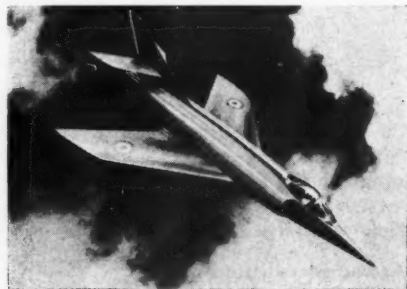
Submarine-Launched Missile

It is reported that the Soviet Union has developed a system for towing huge ballistic rockets underwater by submarine. The rocket is enclosed in a submersible container. Three of the containers which also serve as launchers for the rockets can be towed by a single submarine according to the report.—News release.

FRANCE

Light Interceptor

The *Mystère XXIV*, latest in the long line of *Mystère* type aircraft is now under



Mystère interceptor is under construction.

construction. Powered by an *Atar* jet engine, the aircraft is being built to light interceptor specifications.—News release.

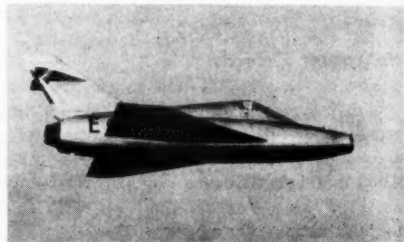
Stable Undercarriage

France's turbo-ramjet-powered *NORD 1500 Griffon* (MILITARY REVIEW, Jul 1956, p 70 and Aug 1956, p 69) is equipped with a new type landing gear which results in exceptionally good ground stability for the supersonic *Griffon*. The undercarriage

is very narrow and of simple geometric design. The same type landing gear is used in the *SO 9000 Trident*, a high-speed experimental research airplane which features two wingtip-mounted turbojet engines.—News release.

Supersonic Tests

The *NORD 1405 Gerfaut II* which made its first flight early this year has completed a number of supersonic test flights,



Gerfaut II in official performance tests.

and is reported to have an exceptional rate of climb. It is now under test by the official flight test center.—News release.

Test Flight

The *Super Mystère B.2*, supersonic interceptor (MILITARY REVIEW, Jul 1955, p 71), has made its first test flights powered with an *Atar G* engine with afterburner and exceeded the speed of sound without using the afterburner. The *Super Mystère B.2* is now in mass production.—News release.

Popular Helicopter

Djinn helicopters (MILITARY REVIEW, Apr 1954, p 69 and Mar 1956, p 70) are now being built at two helicopter production plants. The first helicopters built at the newest plant were test flown recently. According to a report, the opening of a second plant was necessary to satisfy the priority orders of the French Army as well as numerous orders placed by a number of foreign nations. The *Djinn* features a compressed air-driven rotor system whereby the air is ejected at the ends of

the rotor blades without the use of combustion chambers and exhaust ducts.—News release.

GREAT BRITAIN

Defense Budget Reduced

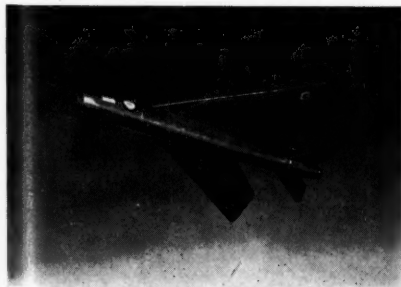
The British Government has announced a 141 million-dollar reduction in defense spending for the current year. The announcement emphasized that this reduction does not reflect any change in the size or shape of Great Britain's fighting forces. The savings are said to have been accomplished by abandoning or deferring defense orders and by increased use of present military stocks.—News release.

Fast-Climbing Rocket

The development of the *Raven*, a 1-ton rocket designed to climb 100 miles in 2½ minutes, was recently announced. It will be used for research during the next year. Instruments under separate development for the *Raven* include equipment to record temperatures, the glow of the earth's night air, and other details of the outer atmosphere.—News release.

Twin-Jet Fighter

The *P.1 Planform* supersonic fighter (MILITARY REVIEW, Mar 1955, p 68 and



P. 1 Planform is undergoing tests. (The *Aeroplane* Copyright Photograph.)

Aug 1955, p 67) is currently undergoing extensive tests. The *P.1* is powered by two *Sapphire* jet engines placed one over the

other to facilitate streamlining, and has a leading-edge flap at the wing root to aid slow-speed control. Small cut-outs along the leading edge of the wing are used to replace the more conventional wing fences.—News release.

Crescent-Wing Bomber

Great Britain's *Victor*, 4-jet crescent-wing bomber (MILITARY REVIEW, Feb 1956, p 70 and Jul 1956, p 72), is now in pro-



Victor uses unique engine-in-wing design.

duction and is being delivered to the Royal Air Force. The *Victor*, claimed to fly higher and faster with a greater bomb load than any other bomber, is powered by four *Sapphire* jet engines buried in the wings. The plane is capable of near sonic speeds at altitudes of over 10 miles and weighs 90 tons fully loaded.—News release.

Delta Wings in Service

A squadron of delta-wing *Gloucester Javelin* all-weather fighters are now in service with the Royal Air Force. The 2-seat *Javelin* is powered by two *Sapphire* turbojet engines. Its tail unit features a delta-shape horizontal control surface mounted on top of the tail fin. It can carry guided missiles, is equipped with long-range radar for gun control in blind firing, and is reported to be the first delta-wing aircraft to go into full service with any air force in the world.—News release.

ITALY

Missile Arms

Italian armed forces soon will be equipped with guided missiles according to a recent announcement. A test range for Italian missiles is being built on the island of Sardinia. Italy was originally restricted from possession, construction, or experiments with guided missiles by the peace treaty of 1947. This treaty was revised by Western signatories in a 1955 NATO meeting.—News release.

CANADA

Atomic Pact

An agreement between Canada and the United States on a new atomic pact has been announced recently. Under this agreement, the United States will furnish Canada information on the design of atomic powerplants for military purposes.—News release.

BELGIUM

More 'Hawker Hunters'

Contracts have been made with Belgian manufacturing concerns to build *Hawker Hunters* (MILITARY REVIEW, Aug 1956, p 71) for the Belgian Air Force. The Rolls-Royce *Avon* turbojet engines for these aircraft are also being built in Belgium.—News release.

WEST GERMANY

Orders Atomic Reactors

West Germany's Atomic Energy Commission has announced that it will order three atomic reactors from the United States. They are expected to cost from \$200,000 to \$350,000 each. The purchase of two additional reactors from Great Britain is also under consideration. West Germany expects to need 441 pounds of Uranium 235 for atomic research during the next 4 years, and has budgeted \$10,305,000 for research and development during 1956. In addition to the governmental atomic research effort, ten industrial firms have agreed to finance the construction of

an atomic research center. This research center will include a reactor and a number of institutes for training researchers and engineers.—News release.

NATO Dollars

The North Atlantic Council will spend \$263,200,000 in 1956 on building airfields and other military installations in Western Europe. Of this amount, \$106,400,000 will be expended in West Germany primarily for the development of airfields. The planned expenditure for 1956 is the third annual allocation from the 700 million-dollar program laid down in 1953. Allied airbases in Europe have been raised from an original 12 to approximately 160 according to recent information. NATO is also planning on an expenditure of about 45 million dollars in construction of a communications system for the radar warning net. The radar net will extend from Norway to Turkey. The special communications system will use the "scatter" system of radio telephony which is virtually impossible to jam. In this system, radio waves are bounced off the troposphere or ionosphere providing transmission up to 1,300 miles.—News release.

EGYPT

Armed Strength

In a recent parade, many Egyptian weapons from sources both Western and from behind the Iron Curtain were displayed. The weapons shown included 48 giant *Stalin* tanks, 16 British heavy *Centurion* tanks, and 73 Czechoslovak-built *T-36* tanks. Airpower demonstrated included British *Meteors* and *Vampires*, and Soviet *MiG's* and *Ilyushin* bombers. Other Soviet weapons displayed were 96 Soviet type *ABC* 6-wheeled troop carriers, 14 tractor-drawn, long-range guns of about 155-mm caliber, and 25 Soviet type *SU-101* self-propelled antitank guns. Also shown were British 25-pounders, *Bofors* antiaircraft guns and French 155-mm howitzers.—News release.

FOREIGN MILITARY DIGESTS

Limits to Obedience

Digested by the MILITARY REVIEW from an article by
Doctor Dharm Pal in "The Army Quarterly" (Great Britain) April 1956.

DISCIPLINE in the army is maintained by strict obedience to the orders of the higher authority. Obviously, there cannot be any limits to obedience. Field Marshal Rommel, however, held a different view. He held that in exceptional circumstances it is necessary to place limits to obedience. Rommel's theory as explained by General Speidel (his chief of staff) was that: "Obedience must end at that point when the general feels that he is responsible for the fate of the nation and where the human conscience commands insurgence."

Rommel considered it his duty "to sum up all his forebodings in a written and spoken remonstrance to persuade Hitler to alter his mind, if possible. If the last warning was ignored, as those preceding it had been, then he would be released from his oath of loyalty. Then it was his duty to act, a duty to his fatherland." Rommel's justification for acting thus was that it was necessary to differentiate "between obedience to God and obedience to man," and that "the highest commanders in time of war have not always been able to discern between obedience to God and

conscience and obedience to men." He, however, maintained that "only the highest military leader was qualified, entitled, and obliged to take this grave decision, not the individual soldier or officer who could not possess the same wide view of all factors."¹ In short, Rommel was of the view that a general has the right to refuse to obey orders and even to conspire against the established regime if he is convinced that the policies of the High Command are leading the nation to ruin.

It is a dangerous doctrine to make conscience the basis of strategy or discipline in the army. Rommel's theory was the product of a pathological state of affairs—the conflict between Hitler and his generals over the fundamental issues of strategy. The theory was a cry of despair, for the generals found themselves caught in a web of circumstances from which there was, perhaps, no way out except to defy Hitler's orders and even to revolt as a last resort. The chief cause of the conflict between Hitler and his generals was that whereas the former wanted to adhere strictly to the

¹ Hans Speidel, *We Defended Normandy*, pp 87-88

policy of "no withdrawal" from the forward positions, the latter favored an elastic policy of "strategic withdrawal." Now it must be confessed that Hitler and the *Oberkommando der Wehrmacht* (OKW) were perfectly within their rights in overriding the views of the generals, for the final formulation and the laying down of the broad lines of policy are the functions of the Supreme Command and not of the army commanders. The Supreme Command, however, treads perilous ground if it habitually ignores the considered views of the generals. This was exactly the mistake made by Hitler. Although Hitler's tenacity and his singleness of purpose infused vigor into the conduct of the operations, his rigid strategy was sometimes unrelated to the realities of the situation and led to disastrous consequences. Hitler thus put too much strain on the loyalty of his generals. Some examples, selected at random, will help to explain how Hitler's disregard of the views of his generals helped to sap the foundations of discipline and loyalty—the very basis of a successful army.

Hitler's Generals

The gulf between Hitler and his generals widened considerably after the surrender of the Sixth Army at Stalingrad. As the net drew closer, appeals were made to Hitler to permit the army to fight its way out, but he was adamant in his refusal. "He could not bear to leave Stalingrad, the city on which he had set his heart and which symbolized for him his conflict with Stalin."² The tragedy at Stalingrad was an eye opener; henceforth some of the generals became restive and even dared to defy Hitler's orders whenever they faced a similar crisis. When the Allies launched their attack on the El Alamein positions in North Africa in October 1942, and the situation deteriorated, Field Marshal Rommel ordered a retreat. The

right wing had already been pulled back from its dominating position when Hitler's radio message was received that he did not approve Rommel's "cowardly evasion" and that the line must be held. In resigned disgust Rommel called off the retiring movement in order to fight and die in obedience to orders. Field Marshal Kesselring, Commander in Chief South, however, told Rommel to ignore Hitler's order as it would lead to the destruction of the German Army and the final loss of Tripolitania. Kesselring accepted the responsibility for ignoring Hitler's order. He radioed Hitler, apprised him of the situation, and succeeded in getting the permission for the retreat.³

In the Soviet Union when two German corps were in danger of being surrounded near Cherkassy in January-February 1944, Field Marshal von Manstein concentrated his Panzers to relieve them and ordered them to break out toward the relieving force. Hitler personally countermanded his order and instructed the corps commanders to maintain their positions and fight to the last. The corps commanders, however, ignored this order and "dared to prefer obedience to Manstein," thereby averting a fatal catastrophe.⁴

Field Marshal Günther von Kluge, the Commander in Chief of Western Forces, faced a similar crisis in western Europe in August 1944. On 15 August 1944 Hitler forbade Army Group B to break out of the shrinking Falaise pocket. Kluge, however, decided to order the retreat. Thereupon, he was removed and replaced by Model. Kluge took poison on his way back to Germany.⁵

General Vietinghoff, Commander in Chief Army Group C, faced a similar problem in Italy in April 1945. He favored a plan for a "false front" maneuver to withdraw from the Senio to the Santerno under

² R. T. Paget, *Manstein*, p 48

³ *Memoirs of Kesselring*, pp 135-36

⁴ R. T. Paget, *op cit*, p 64

⁵ Hans Speidel, *op cit*, pp 142-44

cover of a heavy artillery bombardment and thus appreciably to delay the Allied spring offensive. But this plan was vetoed by the High Command who instructed that not even the smallest tactical withdrawal would be countenanced. This decision of the High Command spelled disaster, for to be forced to give battle south of the Po meant that defeat would inevitably be a disaster which no degree of mobility could modify.

*The position of a commander in chief tied hand and foot by such irrational dictation was a hollow and powerless dignity; all that was left to Vietinghoff was to await the Allied attack in the mood in which the French generals advanced to Waterloo, 'without fear and without hope.'*⁶

Sound Policy

These examples help us to understand the extraordinary situation which the German generals were called upon to face. Hitler failed to create the right atmosphere for a healthy development of discipline and loyalty. Military dictatorship carried within itself the seeds of decay. Hitler drove his generals too hard and too fast. He held the bow of authority too tight until it snapped. He strained the vital principle of discipline so much that it led to a virtual revolt of his generals. It was the price which Germany had to pay for the military dictatorship of Hitler.

Although Hitler's "obstinate blindness fostered by contempt for his commanders and sublime confidence in his own intuition" were partly responsible for the failure of Germany to win the war, the question still remains whether Rommel was justified in his view that the general has the right to rebel as a last resort. Perhaps the only sound policy is that which was followed by Kesselring. He held that there were only three possible courses of action open to him. If he were unable to reconcile Hitler's ideas and orders with his

views, he could only interpret and modify them as seemed best. This frequently happened during the period when he was Commander in Chief South, and Commander in Chief West. The alternative was to have it out with Hitler. If after that he still remained unconvinced or failed to make him change his mind, he must ask to be relieved of his command. By following this sound policy Kesselring, unlike Rommel, avoided clashing with Hitler without sacrificing his principles or his strongly held views on strategy. One example will illustrate this point. After the loss of Rome on 4 June 1944, Kesselring's policy was to withdraw his forces to the strong defensive positions in the Apennines.

At the end of June and the beginning of July 1944 when Hitler peremptorily demanded that the retreat be stopped and the defensive resumed, Kesselring flew to his general headquarters to reconcile his views with those of the OKW. Hitler wanted Kesselring to accept the principles of strategy valid in the USSR. Kesselring skillfully presented his point of view. He asked Hitler to face the problem squarely, namely whether after Stalingrad and Tunis he could afford the loss of two more armies. Kesselring guaranteed to Hitler to delay the Allied advance appreciably, to halt it at the Apennines and thereby to create conditions for the prosecution of the war in 1945, which could be dovetailed into his grand strategic scheme. Kesselring won his point.⁷ Kesselring was firm as well as tactful and he enjoyed the confidence of Hitler. He enjoyed the longest spell of continuous command of any German commander in chief. It is his policy and conduct which can be held out as a model to follow and not that of Rommel. Discipline is a safer guide than conscience. The only sound policy is to place no limits to obedience and to enforce discipline in the army irrespective of any ethical considerations.

⁶ Field Marshal Alexander's dispatch, *The Italian Campaign* (12 December 1944 to 2 May 1945), p 40

⁷ *Memoirs of Kesselring*, pp 207-08

The Tank Battle of Târgul Frumos

Digested by the MILITARY REVIEW from an article by
Lieutenant General von Manteuffel in the "Australian Army Journal" September 1955.

THIS account does not deal with the Battle of Iasi, but with the fighting of major tank formations at the beginning of May 1944, the center of which was Târgul Frumos, about 28 miles to the west of Iasi.

The big Soviet attack, with the object of breaking through to the Ploesti oilfields, fell entirely on the Panzer Grenadier division *Grossdeutschland*, which I was commanding at that time.

Previous History

The division had been engaged in planned withdrawal movements since the middle of March 1944. It had been thrown out of its positions west of Kirovograd about 19 March, and had assembled in the Kishinev area at the end of the month. There it received orders to drive northward immediately in order to delay and halt the Soviet advance which was threatening to break up the loose defensive front of the infantry formations, then only in the process of reorganization in this area. This mission was accomplished as a result of my division falling on the enemy swiftly and resolutely, in spite of extremely difficult weather and ground conditions. The snow was very deep there, and during the day there were frequently such heavy snowstorms that one could not see farther than a hundred paces. The heroic behavior of the troops and their exemplary determination succeeded in stopping the advance. In this way the other divisions were given the space and time to withdraw into my division's position, and to establish themselves under the protection of our tanks.

The two infantry regiments—the Panzer Grenadier ("A" on sketch) and the Panzer Fusilier ("B") regiments *Grossdeutschland*—had to carry the main burden

of the fighting. They received splendid support from the tank units and the subordinate elements of the Panzer artillery regiment. The terrain was very hilly and favored the division in fighting, the division being extremely well-equipped with automatic weapons of all types.

It was intended to employ the division exclusively for defensive purposes on both sides of Târgul Frumos, with the heights north of Podulyukh ("H") as the eastern boundary. As I saw it, the possession of Târgul Frumos closed this gateway to the south, since from Târgul Frumos one controlled the only practicable road to the east of the Siret River ("L"). On the right of the division were employed first the 24th Panzer Division and then the 46th Infantry Division. I again relinquished command of the IV Army Corps, which I was also commanding. The divisional battle headquarters ("C") was in the town of Târgul Frumos at the western exit. From there I could overlook and supervise the employment of the division, both orally and visually, and had, in addition, a good network of roads and of rapid communication with my commanders. The place had been badly destroyed in the fighting, and it was, therefore, probably supposed that I would not be there. I was seldom disturbed by gunfire while working, eating, or playing bridge.

During April what I had foreseen when taking Târgul Frumos became more and more apparent from aerial photographs, and from radio interception and scout reconnaissance, namely, that the Soviets would have to come this way if they wished to thrust forward to Ploesti. I, therefore, asked for a postponement of my visit to the Führer's headquarters, where Adolf Hitler had summoned me in the middle of

April, because I regarded the attack as imminent and did not wish to leave my troops. My request was granted and I was able to occupy myself intensively with defensive preparations.

During those weeks the division *clawed itself* firmly into the ground—in the most literal sense of the words. All the troops vied with one another in preparing a suitable reception for the enemy. To the request from the Führer's headquarters that the division should be used in another place, and should be withdrawn, I replied that, since a major Soviet offensive was imminent, the division should be left in its positions. I considered its presence here indispensable until the attack was beaten off, in view of the division's thorough knowledge of the terrain, the number of the weapons, its morale, and its preparations for defense against this attack. This request was granted. This roughly represented the position as of 25 to 28 April 1944.

Now follow a few details concerning the terrain, fighting value, and organization of the force.

Terrain

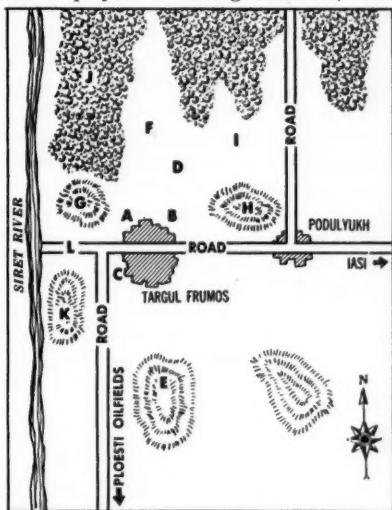
The terrain north of the east-west line, Poduluykh-Târgul Frumos-Siret (Road "L") was everywhere practicable and passable for tanks with long fields of fire. The fact that the enemy was occupying the dominating heights everywhere north of this line was unfavorable, but it was at a distance of approximately 5 or 6 miles from our foremost covering forces, so that, as I hoped, he could only see the outline of our defensive system and not discover its finer points. We advanced our foremost covering forces to approximately 2,700 yards north of Târgul Frumos (to line "D"). South of the east-west line, rising terrain ("K" and "E") afforded us excellent observation posts and positions for antiaircraft and artillery. There was also a Soviet field position ("J") in front of

the deep and broad wooded terrain ("G") in which the Romanians, who were very frightened, were digging trenches off and on. The natural vegetation in the entire sector of the division afforded us camouflage for the infantry positions, their heavy weapons, and for the assault guns.

Winter gave way to warm, sunny spring weather with clear nights, blue skies by day, and good visibility. The subsoil was sandy and, in general, dry.

Fighting Value

In the Rugionasa sector, on the left sector of the division ("G" and "K") as far as the Siret River, a Romanian brigade was employed in strong numbers, well-



equipped with automatic weapons, including antitank weapons of a German model, and well-equipped with artillery. I had refused to mix them with my force, and took the risk—I spoke of the employment of the Romanians thus—on myself of leaving them an independent positional sector. A Soviet attack, if it fell directly on them, would still have to continue through the area around Târgul Frumos. I was confident of being able to encircle it there at

the latest with the elements of my division, which is exactly what happened.

The division strength consisted of 2 infantry regiments, each of 3 battalions, each of 4 companies of 100 men, and, in addition, 1 battalion of heavy infantry weapons; 1 assault gun battery with about 40 guns; 1 engineer battalion at full strength; 1 reconnaissance battalion at two-thirds strength; 1 armored artillery regiment with 4 batteries, guns at full strength; and 1 antiaircraft artillery *Abteilung* with 3 batteries of 88-mm guns and 1 of 37-mm guns.

Ammunition and fuel were in good supply. Signal communications were good. The industrious buildup of a good network was carried out, although I placed more value basically on radio than on line communication. This was practically all destroyed by fire on the first day of attack.

The fighting value of the Romanians was low, and weighed nothing in the balance; they were a burden to us. The officer corps was poor. This judgment applies to all the troops employed in the Romanian boundary position, that is, left of and behind our positions, and the cavalry division held back behind the divisional sector which I had to supply. I counted on none of these formations—and turned out to be only too right!

Employment

Both infantry regiments were in the foremost lines, echeloned in depth, with strong local reserves available to the regimental commanders. The assault gun battalion (*Abteilung*) was divided between the two regiments and placed under their command.

The engineer battalion and reconnaissance battalion (*Abteilung*), as well as the Panzer regiment, were held in the divisional reserve.

The four batteries (*Abteilungen*) of the Panzer artillery regiment, well-supplied with ammunition, were distributed over the entire divisional sector at the disposal

of the regimental commanders, but assigned to the closest cooperation with the infantry regiment. Heavy concentrations of fire were not only prepared, but actually ranged and were tested over and over again, inconspicuously, of course. The heavy infantry weapons, including the infantry guns, were built into the defensive fire plan.

Of the 4 antiaircraft batteries of the division—of which 3 batteries were equipped with 88-mm guns—1 battery was employed and dug in north of Târgul Frumos for antitank defense, and the other batteries were employed in antiaircraft defense.

The Panzer regiment around Târgul Frumos was at the disposal of the division commander. Repair services were close by so as to be quickly at hand.

Ample supplies of ammunition of all types and fuel were available, and for this reason I wish to discount the "fairytale stories," which have been given currency since the war, that we were supposed to have been short of ammunition at this time. Anyone who troubled about his supplies received them.

The operating force had dug itself in "up to the neck," in accordance with my orders, and was distributed over the terrain in mixed battle groups to assure mutual fire support. The entire system of positions was reconnoitered by the regimental commanders, was reported to me, and then fixed so as to ensure uniform cooperation within the division. Supplies of food were good. The welfare of the men in every respect was the first consideration, and was attended to.

I gave my attention to reconnoitering with foresight the employment of the Panzer regiment. Many possibilities were discussed with the excellent body of officers, mostly together with the commanders of the other arms of the service, and settled on as soon as the plan was approved by me. This work went so far that the indi-

vidual Panzer companies could be told their route and the area of their possible positions, so that the most junior commanders could make themselves familiar with the terrain, since for them knowledge of the terrain forms the basis of their fighting—more so than tactical considerations which they should leave to the battalion commanders.

Plan of Battle

My plan of battle was roughly as follows: As I could count with a probability bordering on certainty that the enemy would attack with strong armored forces in cooperation with strong artillery, the latter supported by good possibilities of observation, the attack should be driven off by means of the *employment of the massed Panzer regiment in mobile fighting*. I left in my statements no doubt at all that one regiment of the division would have to defend itself against the enemy alone; that is, without the support of the Panzer regiment since our own tanks could not be everywhere at once. A reconnaissance screen would cover the points where an enemy attack with strong armored forces was to be expected. These were then to be attacked by our tanks and destroyed in order that our tanks could then turn to the sector of another regiment if the employment of the division was still necessary there.

I, therefore, reserved the employment of the Panzer regiment for myself, and later took the regiment through all the phases of the attack. Indeed, up to the morning of the day of the attack, I had no idea where the point of main effort of the Soviet attack would lie. I thought that it would probably lie in the left divisional sector, because the Soviets might hope to stampe the Romanians there, and so be able to roll up my division by exploiting the partial success.

The purposeful and careful strengthening of the infantry's pockets of resistance, well-thought-out fire plans for all arms

(that is, of the heavy infantry weapons; of the antitank weapons, including the elements of the assault gun battalion under command of the infantry regiments; of the artillery and the elements of the antiaircraft artillery operating in a ground role in antitank defense), had to be arranged according to type of weapons, caliber, and ammunition. Assistance from neighbors had also to be arranged at the boundaries, just as if heavy and medium concentrations of fire were being prepared. The basic data for this purpose were obtained unobtrusively by firing.

The divisional battle headquarters was ideal. It lay, as has been previously described, just south of Târgul Frumos on an eminence (move headquarters back to "E") with observation post set up there from which one could supervise the entire sector of the fighting with ear and eye.

After full account is taken of the most careful preparations for defense against the attack, it was the fighting spirit of the force which was decisive. That turned the defense into what it became: a giant failure for the Soviets. There is no doubt that in any case the infantry had to carry the main burden of the fighting. The higher headquarters had no reserves.

There was very close contact with the flying formations of the air force. Its support was promised, but it was, as always, largely dependent upon the weather.

Course of the Battle

In April the Soviets kept quiet opposite the division. They fired little with their artillery, and were obviously saving ammunition. Reconnaissance of their artillery discovered numerous new positions. As was its custom, the infantry in position stayed where it was, committed, until the beginning of its attack; the prisoners brought in claimed to know nothing of preparations for attack. They could not, however, deceive me as to the imminent attack. This I expected to be on 30 April or

1 May. It was sunny weather, clear blue skies, dry ground, and very good visibility. At about 0400 it was light enough for rifle fire.

On 1 May, the day before the attack, it was still quiet on the front as before. After the air reconnaissance had reported strong concentrations in the enemy's rear positional area at midday, I gave orders for a bomber operation on the evening of 1 May, which was carried out. It could be deduced from numerous fires and explosions that the attack was successful. The prisoners taken the following day confirmed this.

On 2 May 1944, at about 0400, the day was started in by lively artillery fire which fell in the main on the forward positions only and did not reach the hinterland. Our camouflage must have been good, for losses in men and matériel were very slight. Although the fire was mainly harassing fire, it was, as is frequent with the Soviets, delivered doggedly. Looking back, I believe that this fire was intended to make the positions of our infantry and its heavy weapons ripe for the tank breakthrough.

About an hour after the beginning of the artillery fire the attack of the Soviet tanks started, and approximately 30 minutes later tank fire struck Târgul Frumos. I saw from my battle headquarters the Soviet tanks rolling up to the town. Our own infantry had allowed them to roll past—partly in order to leave the prize to the antiaircraft battery of 88-mm guns dug in at the northern exit of Târgul Frumos. Most of the attacking tanks, of which there were about 25, were shot up in flames; the remainder, about 10, broke into the concentration area of our Panzer regiment and were destroyed.

I very soon got the impression that the main attack would come from the area northwest of Târgul Frumos onto the town and, therefore, ordered the Panzer regiment to move behind the west of Târgul Frumos in rear of the left sector of the

Panzer Grenadier regiment ("G"). On this knoll a troop of assault guns, beautifully camouflaged, was dug in. As I drove up, about 2 companies of Soviet tanks, numbering about 30, were just attacking the knoll at high speed. There, too, the infantry operating in front had allowed them to pass.

The crews of the assault guns let the tanks approach within a *distance of about 30 yards*, and shot up *all* the attacking tanks in flames. Most of them exploded into fragments. I showed them later to experts, in order to prove to them the outstanding effectiveness of our antitank shells. We had not one dud. Another Soviet company drove in "goose march"—that is, in line one behind the other past where the Romanians, as expected, were dislodged, but this tank company was discovered in good time by a company of our own tanks and annihilated.

My first impression was confirmed by about 0800. *Wave followed wave of tanks which we shot up from favorable, previously reconnoitered firing positions and pursued.* As I was speaking to the commander of the Panzer regiment in his command car (intercommunication), we heard tank fire of the heaviest caliber from a great distance go past between our cars. We soon ascertained that it was being delivered from a distance of about 3,250 yards by heavy tanks which were firing from a stationary position there.

At first we thought a company of our own *Tiger* tanks had lost its way, because we had not previously met heavy tanks of this type on the Soviet side. One company of *Tiger* tanks (*Mark VI*) was ordered to come up, and these began to fire on the other tanks. One could see clearly the shells hitting these tanks, but they ricocheted off the armor plating.

The commander of the *Tiger* battalion who was present ordered the tanks to attack, drove up within approximately 2,175 to 1,950 yards of the enemy tanks, and opened fire on them. Thereupon, 4 of the

tanks burst into flames, while 3 tanks, as far as I could see, immediately left the position at high speed. I gave orders to 1 company of *Mark IV* tanks, which was near me, to pursue and shoot up these tanks, starting from east of Rugionasa. The swift and maneuverable little tanks had the good fortune to come up under cover to within approximately 1,100 yards of these Soviet tanks, and to engage them from the rear. The enemy tanks stopped moving and firing—they were, as we later found out, burnt out. I have made many reports on *Stalin* tanks—advantages: heavy guns, heavy armor, low chassis, about 20 inches smaller than our *Mark V* tanks; disadvantages: slow, not maneuverable enough. The crews were, in my opinion, not yet sufficiently familiar with the tanks.

By about 1100 the Panzer regiment had shot up 250 tanks in the defense area of the Panzer Grenadier regiment. I noticed a hesitation in the enemy attack. Many tanks could still be seen, but they were firing at long range without attacking. We had at first no interest in thrusting so deep into the enemy's position with our tanks in an attempt to wipe them out; we hoped to engage them on the following day or at another place.

Meanwhile, since about 1000, alarming reports were coming in from the Panzer Fusilier regiment (right divisional sector). About 34 Soviet tanks had even penetrated into the village of Podulak, in which the battle headquarters of the regiment was located. During the close fighting, in which the regimental commander personally participated, 24 were shot up. Both the Panzer Fusilier and Panzer Grenadier regiments had been broken through at several points but had succeeded in separating the enemy infantry from the tanks and held their positions. The Soviet infantry had now to fight alone.

I had promised by friend Colonel Niemack, the commander of the Panzer Fu-

silier regiment, to link the Panzer regiment up with him at 1200. The situation was extremely critical there and full of danger. After 1100 a strong attack by Soviet armored forces went in again against this regimental sector. I, therefore, ordered the tanks in the sector west of Târgul Frumos, where every preparation had been made by the commander of the Panzer regiment in a foreseeing and exemplary manner, to provide the regiment as quickly as possible with ammunition and fuel again.

In the left sector, in the area of the Panzer Grenadier regiment, a mixed battalion of *Mark V* and *Mark VI* tanks, under command of the commander of the *Tigers*, had been left behind. I drove forward to the Panzer Fusilier regiment with a company of *Mark IV* tanks, reconnoitered the situation and the terrain, and put the Panzer regiment (which was following me) into the attack directly from the march. It actually appeared on the battlefield 5 minutes before 1200, the time at which I had promised the commander of the courageously persevering Panzer Fusilier regiment. The Panzer regiment immediately shot up about 30 Soviet tanks which were driving around in the rear area of the infantry regiment. By nightfall the situation was completely restored by the intervention of the Panzer regiment.

In both sectors a half battalion each of tanks *Mark V's* and *VI's* was brought into position before day broke, that is during the latter part of the night, so that they could make their tank fire effective in front of our own infantry when there was sufficient light for firing. The enemy's extraordinary tank losses, in conjunction with the fact that the Soviet infantry had not reached its first objectives at any point, allowed me to hope on the evening of 2 May that the worst was over. I was proved right. The Soviets did attack again on 3 and 4 May, but in spite of having fairly strong tank support, their attacks were broken up in front of or in our positions.

On 2 May our own bomber forces operated several times, among them the *Rudel* squadron, as antitank fighters. They gave effective support and shot up a considerable number of tanks. With bombs and aircraft guns they engaged the artillery and infantry positions and concentrations in the rear area most effectively.

Our losses still did not amount to more than 10 tanks or guns, although a considerably larger number were more or less damaged. The Panzer regiment, however, did not suffer a loss of fighting strength, thanks to the outstanding organization of the supply and tank repair service, and remained, as so often before, the faithful helper of the plucky infantry.

The success was great. The breakthrough in the direction of Ploesti had been delayed, the enemy's losses in men and tanks were so great that it could be seen that he had lost the desire to attack here again as long as the Panzer Grenadier division *Grossdeutschland* was in position. I estimated his losses in destroyed tanks at about 350 and about 200 damaged armored fighting vehicles.

Lessons

In my estimation, the success was due to:

1. The correct judgment of the situation in general.
2. The careful, reliable, and detailed preparation for defense, which ensured the closest cooperation of all arms within the division, in which each arm could be fully deployed in accordance with its technical and tactical characteristics.
3. The fire-readiness and fire-technique of all the antitank weapons and of the artillery.
4. The operational readiness and determination and the courage of the infantry, artillery, assault gun and antiaircraft artillery, and the offensive spirit of the tank crews.
5. The exemplary morale of all personnel knowing that each could rely absolutely on the other.
6. The correct appreciation of the battle situation in its various phases, and the appreciation of the terrain by the divisional command.

Adaptation

Translated and Digested by the MILITARY REVIEW from an article by Colonel Chene in "Revue des Forces Terrestres" (France) October 1955.

IN THE war of 1914-1918, which was large, save in its results, many of the command were regulars, who knew how to adapt themselves.

In the war of 1939-1940, which was small, save in its results, all of our command were regulars, who did not know how to adapt themselves.—General Clement-Grancourt.

Even making allowances for the natural roughness of the author and his propensity for startling statements, it must be admitted that there is a great deal of truth in these lines. But this lack of adaptive-

ness was not alone the privilege of the regulars. As General Ely has observed, it was the entire French Army which did not know how to adapt itself to the tempo imposed on it by the enemy in World War II. And the evil continued even after the defeat, for although it is always easy to accustom oneself to the handling of new weapons or equipment, adaptation to their employment or to unexpected modes of combat has shown itself to be much slower.

This lack of adaptation was not the only reason, nor even the principal one, for the reverses of May and June 1940, but it is

sufficiently serious to warrant our pausing to examine its cause and to search for palliatives.

Poison Fruit

The individual who has the fortune to climb to the Propylaea cannot help but smile, as he sees on his right the deserted temple where the Greeks had thought they could confine Victory and retain her for themselves by cutting off her wings. Even today, conquering peoples pay tribute to the Wingless Victory by overconfident belief in the doctrine—always deceptive and often fatal—of military success.

The victory of 1918 was laden, more than any other, with poison fruit. Obtained after 4 long years of enormous effort and frightful sacrifices, it appeared to be permanently acquired. Too dearly paid for, it seemed, for its conclusions to be in doubt and its results ephemeral. It goes without saying that this illusion, so universally shared in the human and political domains, was projected into the military domain.

The governments of the countries bordering on the Atlantic, animated by a sincere desire for peace, were busily occupied in safeguarding what had been so painfully acquired and were deaf to the rumblings coming from the east. Can one, therefore, reproach the battalion commanders of 1918 who were to become the superior commanders of 1940 for having applied themselves to the task of perfecting the "recipe" of what they justly regarded as *their victory*? This preoccupation was quite natural, since the military machine is a motor which most of the time is "idling." When it has passed the bench test of a war, even though with a bit of squeaking and grinding, it seems difficult to alter its structure or its functioning without risk of adversely affecting its future effectiveness. This reserve with regard to innovation harmonizes with the dangerous tendency which impels conquerors to

accentuate their successes, at the same time neglecting the valuable lessons to be learned from their reverses.

This is why the art of war, by the very reason of its intermittent character and the false outward appearances of success, is particularly liable to conformism, or even conventionalism.

Inflexible Doctrine

Thus during the period between World Wars I and II academic instruction was impregnated, without the possibility of revision save for a few adjustments of detail, with the fundamental traits of the war of 1916-18: rigidity of formations, of zones of action, and of axes; chronometric tyranny; equations of tonnages of fire per acre; extreme centralization; fetishism of the terrain where one does not attack and offers no defense except directly to the front; the horizon of the familiar terrain compartment, extending no farther than the knolls or the edge of the woods; worship of the complete, written order; of the complete report at a fixed hour; and of the detailed drawing showing everything down to the humblest rifleman.

During the 20-year period an entire generation of officers was thus prepared in accordance with norms which were proper to siege warfare. Certainly it cannot be said that the French Army did not work. During the period when the simple command of a machinegun section required a manual, it seemed as if the officers had never had so many duties, had never pursued so many courses, and had never consented, in silence, to more self-abnegation. Perhaps they were too occupied and too enslaved by doctrine to have the time to give themselves over to fruitful meditation, or to be moved by curiosity to cast their gaze beyond the frontiers of their country and those of a recent past. In addition, this crystallization of the processes of war of stabilization, distilled in the military minds a mysterious poison which

brought on a near-paralysis, a condition of torpor.

The Dark Days

That is why, during the dark days of May and June 1940, the majority of the units suffered the worst of surprises—mental surprise. They found themselves without orders, or with orders no longer applicable because of a change of situation when they were face to face with uncertainty or the unknown, with adjoining units yielding on their flanks, and the enemy attacking their rear. They had to leave the moral comfort of the field of battle for the discomfort and uncertainties of the roads, discarding the firing chart and seizing the route map. In spite of their courage and actual worth, the feeling that nothing of what they had learned was proving of any value was overwhelming to them and, unprepared for the unforeseeable, they were unable to find the necessary resources for adapting themselves instantaneously to the new forms of combat.

"A victory is, perhaps, more difficult for an army to surmount than a defeat," wrote Raoul of Dirardet. We, for our part, would not hesitate to omit the "perhaps." This became especially evident after Frederick the Great's momentous victory over the French at Rossbach in 1757. The disciples of Guibert proved it, in due time, to the successors of Frederick II. It was the study of our reverses of 1870 which shaped the admirable phalanx of the "regulars" of 1914.

In their turn, the conquered parties of 1918, not having the same reasons as the conquerors to be satisfied over the war which had just come to an end, overcame their defeat and subjected to the rigors of criticism the procedures which had led them to capitulate.

Called upon to constitute an entirely new army on ruins where vestiges remained, our adversaries deliberately renounced all scholastic conformism and

strove to develop in their cadres the quality which, it seemed, they had most often lacked—initiative. A careful study of their peacetime labors reveals the extent to which this initiative—with no knowledge as yet of the future means they would employ—was resolutely and systematically cultivated.

They placed their students in so-called catastrophic situations, obliged them to conform to the strangest of combat situations and to endure the worst "frictions," spoken of by Clausewitz, impelled them to "use any wood available for their arrows," and even to seize without scruples their neighbor's means to accomplish their mission. Their students were taught to turn against the enemy the means captured from him, to employ any and all stratagems, and to give brief orders, nearly always special and most frequently oral. They succeeded in this manner in training commanders with resourceful powers of imagination, capable of adapting themselves rapidly to the vicissitudes of the battle and exigencies of the action.

Contradictory Lessons

One of the most astonishing features of the war of 1939-45 may be said to have been its total character, not only for the reason that entire continents engaged in it with all their human, moral, intellectual, technical, and material resources, but also because it was fought on all the possible types of fields of battle, from the polar ice to the tropical jungles, all "means" known, from the most archaic to the most modern, were used by the combatants, and the fighting itself was conducted in all the forms imaginable.

It inevitably follows that if one abandons himself to the questionable attractions of abstraction, one is able, without the least trickery and equally good faith, to extract from World War II the most contradictory of lessons. The theoreticians of the "ready-reckoner" school stand op-

posed to those of the war of movement. The latter condemn fronts and walls; the former praise the virtues of armor plate. To the proponent of encirclement Bastogne, Bir Hacheim, and all the "hedgehog" defense formations are cited in objection. One person places all his hopes in tanks, another in airborne forces, still another in artillery, and a final one in guerrilla warfare. Moreover, the advent of the nuclear weapons and other means of mass destruction—as yet unemployed on the field of battle—contribute powerfully toward the breaking down of all theories and obscuring with a dense smoke screen the horizon of the future. So, the prophets disagree among themselves. As a matter of fact, anything seems possible.

Will we see the hot war get under way like a piece of fireworks which goes off in full force immediately, or in the form of a display which starts slowly and increases little by little? Will we fight for the possession of the polar ice packs, industrial establishments, uranium mines, or "impassable" rivers? Will we fight with H-bombs or knives? And in the midst of this uncertainty, how can we help noting that the vanquished parties of yesterday do not seem to be involved in this matter this time? The aggressor, wherever he comes from, will be one of the former conquerors: to what extent will he have surmounted his victory? Our present state of confusion possesses aspects that may well be disturbing. For that very reason we should reflect on, and seek, to the extent that it concerns us, the best line to follow.

Adaptability

True enough, one cannot prepare himself for all eventualities. But a choice must be made, and the organization of our military apparatus can be conceived only on the basis of the most likely hypothesis. This must not necessarily lead us

to limit our thinking and our efforts to the elaboration of tables of organization and plans solely based on the assumption of the certainty of a conventional enemy, nor to the use of sonorous phrases like fortified zones, areas of responsibility, and endless debates over the use of obsolete weapons. As Camille Rougeron states: "It is a natural tendency of weapons in difficulty to seek in clever tactical combinations the remedy for their deficiencies." The thing to do first, it seems, is to train cadres capable not only of waging a given war but of waging war generally speaking, that is, capable of adapting themselves quickly and skillfully to the armaments, successes, and also reverses of the future.

This essential determination and, let it be noted, the only profitable one on the basis of any hypothesis, seems to us the more imperative since, probably, "we will be the soldiers of a war which will no longer be national."

But, make no mistake about it, there can be no burning of incense at the altar of the famous and too fatal policy of figuring a way out somehow when the time comes. "Improvisation is the daughter of lack of foresight," but *adaptation* is the daughter of aptitude—and this cannot be improvised.

This aptitude is born, in large part, of the pains with which each of us trains himself personally. Above all other things it presupposes knowledge of war in all its aspects. To be sure, study of recent fighting and the extrapolation of its lessons into the near future are the A, B, C's of this knowledge. To permeate oneself with the trend and the laws of its evolution, to discover its modes of action under new circumstances which, most frequently, are only a reedition of the past, one must avidly explore military history and, in particular, extend his gaze beyond the limits of the familiar fields of battle.

Individuals of humorous inclination at

one time poked fun at those British military writers who, bent on finding methods of employment for mechanized means, studied the campaigns of Genghis Khan, the only campaigns in history conducted almost exclusively with cavalry. Nevertheless, nothing ever more closely resembled the impetuous drive of the Golden Horde than the deployment of Guderian's tanks, and Rommel showed that Sabutai was not unknown to him. A careful study of the Spanish guerrilla fighting and of the Irish insurrection would have greatly helped the officers who were combatants of the *maquis* as well as the activators of the resistance themselves.

This incursion into the past must be accompanied—needless to say—with information as precise as possible on modern weapons, their characteristics, and their possibilities. Imagination must be used here in the effort to find the solution to the new tactical and technical problems posed by the evolution of armaments.

Military Character

Military knowledge without character is useless. The building of character, of aptitude for leadership under all circumstances, must be the permanent concern of every commander worthy of this name. One must train his character exactly as he must submit to the physical training necessary for intellectual and moral balance. One can accustom himself to making prompt and unambiguous decisions, to calmness when the others are unnerved, to moderation of gesture and of the spoken and written word, to finding in the very difficulty of one's task the generative stimulant of creative action. It is at this price, with all that it implies of self-control and self-discipline, that the personality of the commander grows. And this growth, with the view to combat, is the greatest in combat itself. Great care must be taken, however, not to fall into the error—frequent in the case of fighters—

of believing that the war that they have fought has given them sufficient experience and exempts them from the necessity of studying. For, if knowledge without character is useless, character without knowledge may prove dangerous. This was clearly evident after the French adventure in Mexico.

For the majority of the peacetime cadres, character, "this virtue in difficult times," can be developed only through contact with the frequently deceptive realities of daily existence—which at times are more critical than those of combat. It seems, therefore, that personal effort cannot suffice and that it is even doomed to failure if the military apparatus, as a social collectivity and professional milieu, does not favor it.

Imperfect System

There is a great deal that could be said here. The bitter fruit of the defeat of 1940 contains a germ of truth: that of the necessity for the renovation of our army. But the absolute necessity of resuming the struggle, of participating in the liberation of France, and the exigencies of worldwide commitments have led us to put off this most urgent matter, and to keep, if not render still worse, an imperfect system which was at least partly responsible for our defeat. One of the worst characteristics of this system—to mention only one of them—is the excessive centralization which leads to the suppression, at all levels, of authority and responsibility. In spite of the basic principle of administration that authority and responsibility are not to be separated, one observes all too often the phenomenon of officers weighed down under a load of constantly increasing responsibilities, yet almost totally deprived of the powers which would enable them to properly assume these responsibilities. To be sure, difficulties may serve as a stimulant, but, as always, a critical point exists beyond which they become paralyzing. For this

reason it is not well repeatedly to impose exhausting tasks on commanders with no means for acquitting themselves of them. A great step will have been taken toward the return to health and welfare of our army when a logical and harmonious union of responsibility and authority will render it possible for the command at each level to act without constraint within its sphere in accordance with the exact measure of its obligations.

Chief Mission

The chief mission of the army in time of peace—preparation for war—continues to be a mission of instruction. Hence it appears indispensable that this instruction be vigorously orientated in the direction of the training of cadres capable of surmounting, without killing effects, all the unforeseeable things of tomorrow.

There is no doubt that modern war requires, particularly in the case of the subordinate executives, constantly increasing specialization and technicalization. But in the last analysis, in combat, these disappear in favor of the moral values and intellectual agility of the individual.

Hence our regulations, which are the chart of this instruction, can never sufficiently emphasize the necessity for ceaselessly increasing the individual value of the commanders and combatants. It is this that is important, rather than a subtle distribution of the commands on the

basis of what is worn on the shoulder. Imbued with the eternal principles of combat—which are few in number and applicable at all times and in all places—our regulations must be free of all formalism.

Conclusions

As in the study of military history, it is ideas or matters for reflection that one must find in instruction, not ready prepared recipes. Our regulations must repudiate all the inadvisable developments that are more often a cause of obscurity than of clarity. Like well-composed orders, good regulations must be brief and concise but comprehensible.

We should like to see an almost forgotten idea vigorously practiced again in our army as it was with our ancestors—that of the ruse. It is astounding to find that in all our regulations—both those of the period before and after the war—one never meets with those important words: *deceive the enemy*. Clausewitz calls attention to the fact that: "It seems impossible to realize any surprise without some trickery."

Thus we must have commanders with an alert mind, resourceful imagination, and strong will, trained in successfully coping with the unforeseen and, in consequence, capable of keeping ahead of the *lessons drawn from combat*. This latter is always costly at the beginning of a war. It is a luxury we can no longer afford.

While there is no unanimity of opinion as to what characteristics are most important in the formation of leaders, I submit that all the great leaders of the past and the present have been conspicuous for three qualities. First, they have been devoted to the welfare of their troops. Next, they have been richly endowed with human understanding. And finally, they have stood out by their professional competence and ability.

General Maxwell D. Taylor

The Fighting of Fortress Breslau

Translated and Digested by the MILITARY REVIEW from an article by Hans von Ahlfen in "Wehrwissenschaftliche Rundschau" (Germany) January 1956.

IN THE first days of February 1945 the Soviet forces had driven to the Oder and with the exception of Glogau and Breslau all the area east of the Oder was in their hands. The German plan for defense on the line of the Oder contemplated a series of bridgeheads on the east bank of the river at Krossen, Glogau, Breslau, and Oppeln. It was planned to attack from these positions any enemy attempt to cross the Oder. This, however, required adequate forces to accomplish such a mission and such forces were not available. The idea of offensive defense of the Oder was abandoned in January 1945, and the so-called fortresses of Oppeln, Breslau, and Glogau were organized for all-around defense on both sides of the Oder.

Breslau had been declared a "fortress" in August 1944, but by January 1945 little action had been taken toward the establishment of field fortifications about the city, and the fortress staff had not been organized for the anticipated combat operations. However, as the need for preparations became more urgent, in mid-January a determined effort was made to prepare the fortress for the accomplishment of its mission.

A fortress staff was set up and started to function. Troops were organized. Men on furlough, replacement troops, army school personnel, and itinerant military were formed into five independent over-strength regiments. The artillery and antiaircraft were organized under a common command, and an armored battalion, an antitank section, an engineer regiment, a signal regiment, and a training and replacement regiment were formed. The city inhabitants who had received previous military training were organized into *Volkssturm* combat battalions and those

who had not seen combat were organized into construction battalions.

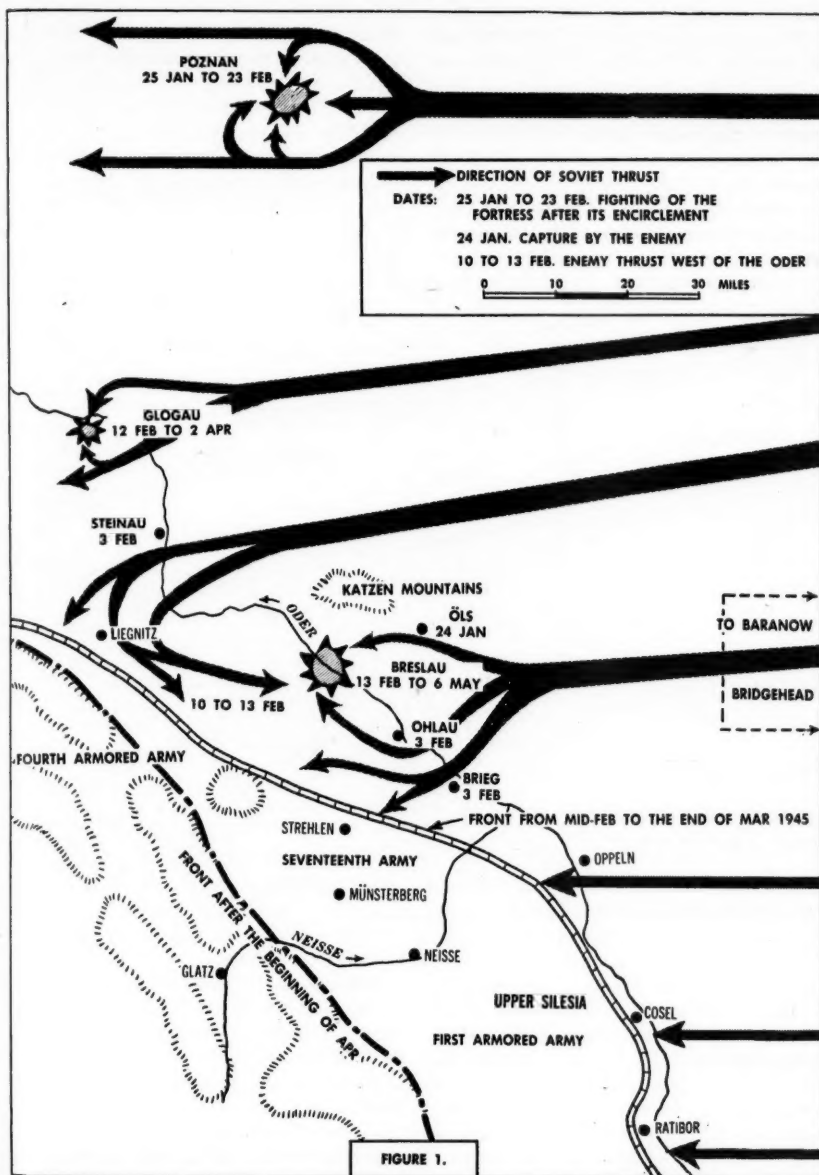
The supply situation was particularly bad. The ammunition supply for the mortars, artillery, and antiaircraft artillery guns was inadequate for a fight of long duration. No ammunition was on hand nor to be expected for the numerous 120-mm mortars. Motor fuel was in extremely short supply as were trucks and cargo carriers. Early in the organization of the fortress a changeover to horses for transportation was made. Food and medical supplies were adequate.

Resupply could be only by air. The Gaudau airfield in the west edge of the city was quite exposed, so construction of another airfield was begun in a less threatened part of the city—at Friesenwiese.

In the civil defense picture the fire-fighting organization, the construction agencies, the municipal services, and the feeding of civilians were placed on a wartime basis with military control.

The enemy, who had pushed through Kepno, brought strong forces to bear against Brieg and Ohlau where he succeeded in establishing a bridgehead on 3 February. A weaker column, whose leading tanks had reached Öls on 24 January, had pushed on against Breslau. After their attacks had been repulsed north of the Weide, portions of these forces had turned off on either side of Breslau and had established bridgeheads across the Oder at Kraftborn and Peiskerwitz. Since rapid elimination of these bridgeheads was necessary, troops locally available at Breslau were hastily organized for the counter-attack, and by 8 February, both bridgeheads were eliminated.

The front east of the Oder had at first been considered especially vulnerable, for



here the enemy found the shortest route to Breslau. The success at Kraftborn and Peiskerwitz and the successful repulse of further disorganized attacks showed that the enemy had no more than a single division in the area.

In addition to a strengthening of the combat morale, the successful repulse of the enemy resulted in the opportunity for the defenders to continue with their organization.

The enemy situation west of the Oder

be expected in a short time. By the Seventeenth Army's resting its left wing, and the Seventh Armored Army's resting its right wing on Breslau, an encirclement of the city could, perhaps, be prevented. Whether the strength of these armies would suffice and whether their overextension might open the way for the enemy to the mountains to the south and southwest, could not be foreseen owing to lack of information. The main question, so far as these two armies were concerned,

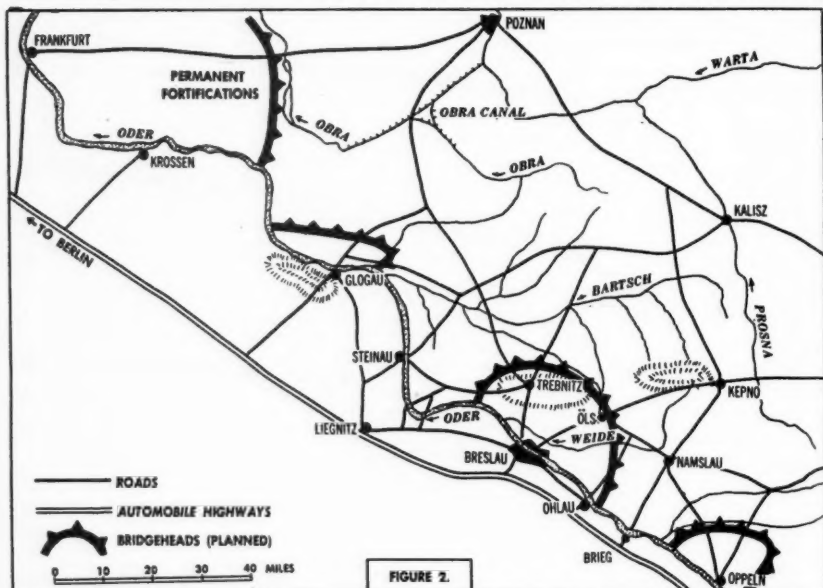


FIGURE 2.

was to be regarded as considerably more threatening, however. Strong enemy forces which had pushed forward north of the Bartsch had succeeded on 3 February in crossing the Oder at Steinau, from which point they endeavored to cut the automobile highway at Liegnitz. If the German Seventeenth Army and the Seventh Armored Army did not succeed in preventing a junction of the two strong enemy groups at Brieg-Ohlau and at Steinau-Liegnitz, the encirclement of Breslau could

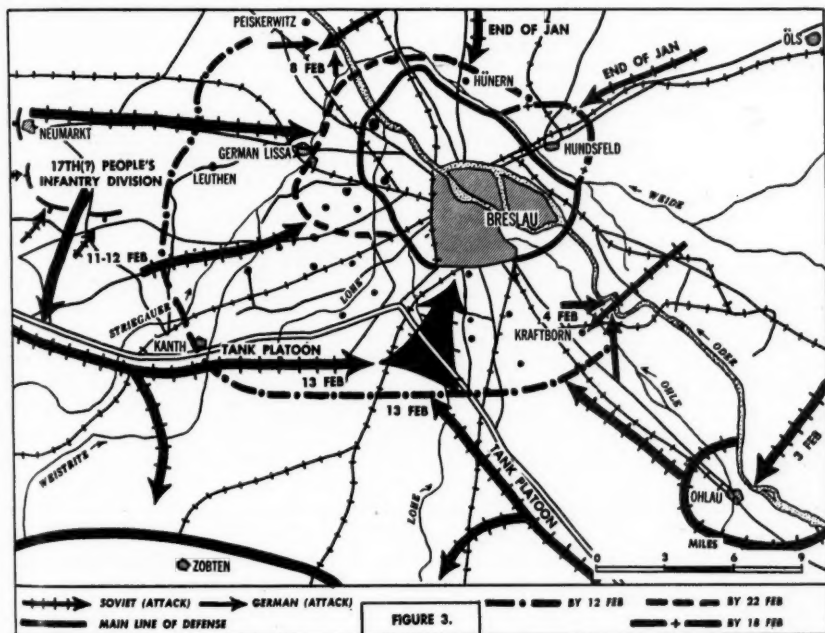
be expected in a short time. By the Seventeenth Army's resting its left wing, and the Seventh Armored Army's resting its right wing on Breslau, an encirclement of the city could, perhaps, be prevented.

Whether the strength of these armies would suffice and whether their overextension might open the way for the enemy to the mountains to the south and southwest, could not be foreseen owing to lack of information. The main question, so far as these two armies were concerned,

the highway in bitter combat with the Seventeenth Army and the Seventh Armored Army was effected and the Soviet encirclement of Breslau began. The German armies were pushed southward and on 16 February the circle around Breslau was finally closed.

In this fighting the 609th Division under Major General Ruff, with parts of the

to be expected soon, without its awaiting the arrival of the western group between the Weistritz and the Lohe, which had been hindered in its advance by numerous obstacles and which was estimated at two divisions. More dangerous, of course, was the possibility of a joint attack (although later) by the southern and western groups. It was assumed that the enemy under-



269th Division, was forced into Breslau and took part in the defensive battle.

The enemy had now confined himself to reconnaissance attacks east of the Oder. There were no evidences of a strengthening of these forces. On the other hand, south of Breslau a sizable force consisting of several divisions had now become obvious. Two columns proceeded westward, one from the region north of Kanth and one heading for German Lissa. On the basis of the enemy situation, thus far, an attack by the strong southern group was

stood the importance of the Gandau airfield west of the city and a strong attack was expected there soon.

The German forces—35,000 men and 10,000 members of the *Volkssturm*—were neither strong enough nor mobile enough to accomplish their mission by opening and maintaining a corridor southward. Neither the numbers nor types of the available forces were capable of maintaining a main line of defense so far from Breslau that the heart of the city would be beyond the range of the ene-

my's fire. Thus the sole solution left was to maintain a short main line of defense closer to Breslau.

The predominating idea for the overall conduct of operations at that time and subsequently was the retention of the Gandau airfield and its maintenance in such a condition that air traffic would be possible, at least at night. Otherwise, ammunition shortage would soon cripple the defense. A deep enemy penetration from the south into the center of the city would also have to be prevented.

From the point of view of the terrain the southern side was the weakest spot, since natural obstacles in the open country were lacking here. On the west and southwest the terrain was more favorable. The Weistritz formed a good obstacle on both sides of German Lissa, while large villages with buildings of heavy construction between the Weistritz and the Lohe augmented the defense possibilities in this area. The cemeteries on the southwest edge of Breslau, where there still existed defensive earthworks dating from 1914, facilitated the organization of the terrain for defense. Tall storage buildings of reinforced concrete on the western edge of the city provided excellent and almost invulnerable observation posts. The Ohle traverses the terrain to the southeast between the city and the Oder. By damming this stream it could inundate its broad channel depression and form a protection against attacks. East of the Oder the Weide sector provided a good position. There were also a number of infantry earthworks there. The Weide sector was chosen, therefore, as the location for the main line of defense, while west of the Oder it extended (beginning on the north) along the line, "the Lohe-the cemeteries-the railway line on the south-and the Ohle stream depression." East of the Oder 2 infantry regiments were emplaced; west of the Oder, from the Oder to the railway line south of Hindenburg Square, 3 in-

fantry regiments, and next to these, as far as the Ohle depression the 609th Division and, in the Ohle depression, the *Volkssturm* forces. In order to retain possession of the airfield, the forces between the Weistritz and the Lohe were to continue to fight west of the Lohe as long as they were able and, even after withdrawing to and back of the Lohe, they were to slow down the enemy's attack by offensive defense.

The grouping on the south had developed out of the fighting in that area. A regrouping in favor of the apparently weaker west looked like an indefensible risk which at this time could have led to a weakening of the strongly threatened south. For the support of the west, therefore, a flexible combination of the fire of the artillery and antiaircraft guns was worked out which, on the basis of previous experience, could be depended upon to be quite effective. The actual development of the operation justified these ideas and measures.

The fact remained that the majority of the newly constituted units had already proved themselves in the fighting and had regained confidence in themselves and the new command. The population was resolute and cooperative. The civil sector had already displayed indefatigable and dependable readiness in the assistance they gave.

On 15 February the attack, strongly supported by artillery and aviation, began on the south, leading on 20 February to the loss of the southern stretch of railway embankment. From this line, ceaselessly attacking assault wedges ate their way forward to the Hindenburg Square. Moved by heavy initial reverses, the enemy plastered his attack objectives (principally the corner buildings of street intersections) with incendiary grenades and bombs until they were in flames, then attacked in shock troop fashion with strong combat engineer support. After some initial losses, the enemy committed his tanks

very cautiously. In the face of these tactics, which "burned out" the German defense, the defenders found themselves almost powerless in spite of their efforts with hand fire extinguishers and chemical means. To try to prevent this "burning out" of the defense, corner houses in the depths of the combat zone were systematically burned and their walls demolished in

ment succeeded brilliantly in the employment of this combat technique, knocking out 100 enemy AT guns in 14 days.

It testifies to the bitterness and also the success of the fighting, which was joined with counterthrusts, that the enemy was 10 days (until 1 March) in advancing the 1 1/4-mile stretch from the edge of the city to the Hindenburg Square. The en-

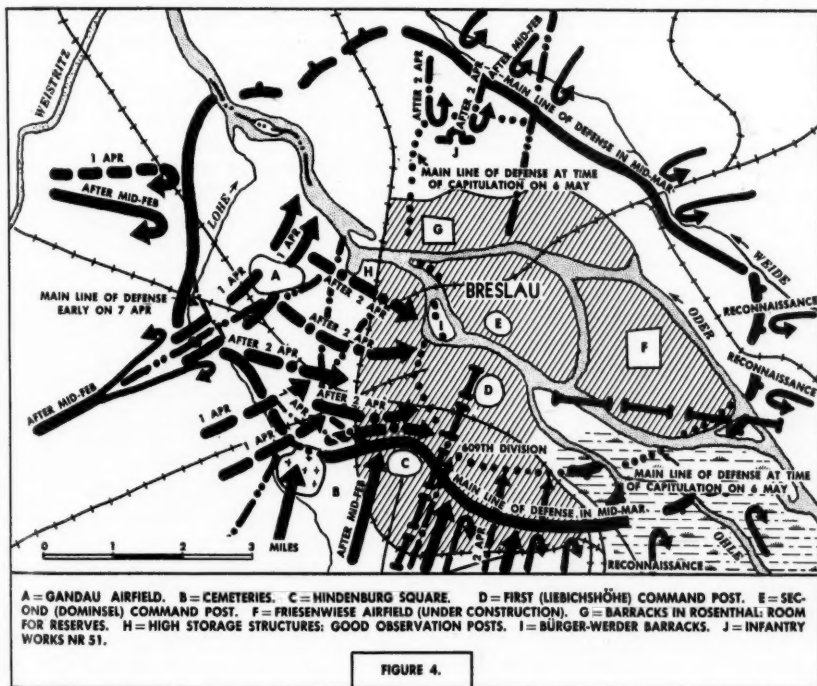


FIGURE 4.

such a way that their cellars and ground floors were turned into fireproof defense installations. A new attack procedure with concentrated antitank (AT) gunfire from open firing positions then threatened to crush our resistance in our corner-house bastions. As a countermeasure, timed fire with mortars and 20-mm antiaircraft guns proved of value, this first forcing the enemy gunners to seek cover, whereupon the enemy AT guns were combated with *Panzerfäuste* (bazookas). The Mohr Reg-

iment remained in possession of this strong point until the end of March. Owing to the attrition of the German forces, an enemy breakthrough threatened on several occasions between the cemeteries and Hindenburg Square, which the alternately fighting Wehl, Mohr, and Besslein Regiments and, during the course of April, the Mohr Regiment again prevented.

The fact that the enemy did not conduct his fighting on the west with the same pressure as on the south was an advantage

which, in the final analysis, rendered the long battle for the defense of Breslau possible. To be sure, there were two Soviet divisions attacking. However, the German defense fighting on the Weistritz, between the Weistritz and the Lohe and finally, at the Lohe, combined with counterattacks and supported by fire and obstacles, retained possession of the airfield, and permitted its continuing use for night traffic until the end of March.

It should be noted that from the viewpoint of command the effort to retain the airfield prevented the use of our forces in larger and more promising counterattack operations against the flanks of the attacking enemy assault wedges on the south. Available reserves and ammunition were inadequate for both operations. Also, a major success against the forces on the south would have been worthless if it had to be purchased with the loss of the airfield whose recapture, without adequate ammunition resupply, appeared improbable.

By the end of February enemy attacks east of the Oder were defeated by vigorous night attacks against the enemy's rear and skillful withdrawals from advanced positions. Supported by the inundation of the Ohle depression, the *Volkssturm* Battalion repulsed every enemy attack and Breslau's east flank remained protected.

General Niehoff, who took over the command on 10 March, was flown in with information that the ammunition deliveries were to be increased and that relief divisions were on the way. This latter information was to be made known immediately to the troops and population. The relief divisions, of course, never appeared.

In the final phase information concerning the enemy indicated that seven divisions reinforced by strong army forces were engaged against Breslau. The enemy's point of principal effort was now shifted to the west side of the city.

On 1 April, after a powerful artillery

preparation and with air bombing which engulfed the entire city in flames, the attack began. Concealed by a smoke screen, heavy tanks drove through the Mohr Regiment and seized the Gandau airfield. The attack pushed on to the engineer barracks on the Oder. Here, the enemy attack slowed down, and the Mohr Regiment was able by 2 April to organize a new front, by bringing its three northernmost battalions across the Oder at night over the Ransern lock.

This successful redeployment, which put an end to the threat of a breakthrough into the western part of the city, together with the fact that concentric attacks were not again employed, made it possible for the German Command to continue the fighting, even in this critical phase.

The loss of the Gandau airfield weighed heavily and was an unmistakable sign of the beginning of the last phase. The now completed airfield on the Friesenwiese could not be used because of the massing of enemy AT guns in that vicinity. The ring of searchlights had become so dense that after nightfall one could read in any part of the city by their reflected light.

From the middle of February until the loss of the Gandau airfield, resupply by air proved to be only moderately successful. Enemy air superiority prevented daytime operations. Enemy attempts to jam the radio direction-finding were circumvented with comparative ease, but bad weather conditions at the takeoff airfields and at Breslau often made airdrop the only practical method of delivery of supplies. What supplies were dropped often landed in enemy territory and were lost. Evacuation of casualties was successful as long as it could be accomplished, but immediately with its cessation the medical facilities at Breslau were overflowed.

Ammunition for the light field howitzers, the chief artillery weapon in use, was in such short supply that plans for the day's fire were based on reports of the

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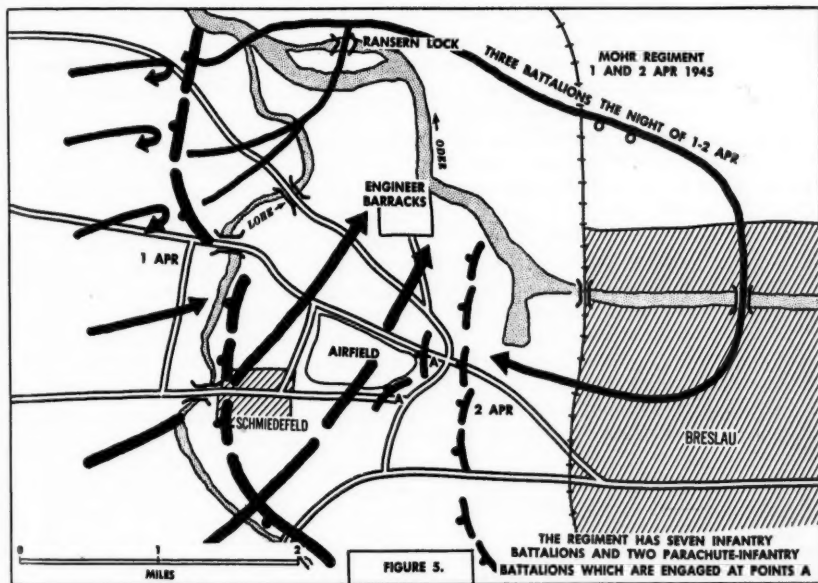
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amounts of ammunition on the way by air. This expenditure plan was subsequently modified according to the amount of ammunition which actually arrived. This system resulted in an equitable allocation of ammunition and materially contributed to the continuation of the defense.

A notable feature of the air resupply system was that firing tables for captured artillery were flown in enabling the Ger-

was never brought to a defensible condition. By the time the Soviet forces had encircled Breslau, its capture was no longer imperative, for the Soviets had secured several other bridgeheads over the Oder. In fact, it appears that the original intent of the enemy was to bypass Breslau.

The stubborn defense of Breslau permitted the removal of much valuable material to the west. It maintained a pocket



man forces to alleviate the artillery ammunition shortage by use of Soviet matériel.

In this defense situation the engineers were attached to the regiments. This led to a great diversification of their effort, but assured that their tactical actions, which included mining operations, bridge destruction, construction of close-fighting barricades, and the use of cable controlled explosive carriers were suited to the needs of the moment in their particular area.

The city of Breslau, although designated as such, was never really a fortress and

of resistance in Soviet held territory which they felt, rightly or wrongly, would have to be reduced by force. Breslau was the only fortress in the east which continued to fight until the general capitulation. Finally, it demonstrated the methods by which the Soviets continue to "slug ahead" without regard for losses. For Breslau, with a force of 45,000 men, immobilized an enemy force of over 100,000 men for a period of 3 months. In this battle the defending forces lost 6,000 dead and wounded, and the attacking Soviets suffered 30,000 to 40,000 casualties.

War on Logistics

Digested by the MILITARY REVIEW from an article by
J. M. Spaight in "Air Power" (Great Britain) Spring 1954.

STRATEGY, tactics, and logistics make up the content of the art and science of war and the third is not the least important of the three components. Once, when weapons were primitive and invaders lived on the land, it was of no great consequence. It has increased in importance as armies have become larger, as their equipment has grown more elaborate, as their supplies have come to be used or expended on a scale unprecedented in the older wars, and as the moving of troops and their impedimenta has tended to make upon a belligerent country's transport system demands which may impose upon it a strain approaching the breaking point. The ever-increasing mechanization of war has brought with it, inevitably, complexities of production and maintenance which only a very massively planned organization can cope with successfully.

A major conflict takes place today on an economic as well as on a military front, and what is done on the former reacts directly upon the fortunes of war on the latter. To have amassed better armaments in greater abundance than your enemy, and to be able to keep up the supply of them, is to have gone halfway to victory already.

Logistics is defined in the *Oxford Dictionary* as "the art of moving and quartering troops." This definition is too restrictive today. Logistics run back much further than the point at which division G4 work begins, and the movement that is in question is not, as the definition seems to imply, that of troops only. (In practice, the moving of troops in the field would be regarded as tactics, not logistics.) A distinction is sometimes made between "civil logistics" and "military logistics," the former being the mobilization

of the civilian industrial economy to support the armed forces, and the latter the supplying of men and matériel and the rendering of services to the operating military forces.

It is very difficult, however, especially in total war, to draw a line between the civil and military efforts in this matter. It is better to take logistics as embracing everything that has to be done for armed forces in the way of providing them with all their material needs and ensuring that they are in this respect ready for battle. Its concern is the business of supply of armies, fleets, and air forces; of the production, procurement, and delivery to them of everything required to make them well-rounded fighting forces; and of ensuring that they lack none of the many kinds of supplies and equipment which are used in war today on a prodigal scale.

The logistician has to be a universal provider. He is in charge of the powerhouse and pipeline of the nation's war potential. His work can spell victory or defeat. It has been said that the military potential of a nation is directly proportional to its logistic potential. He has to go into business in a big way to become large-scale buyer, manufacturer, wholesaler, forwarding authority, allocator of scarce materials, apportioner of manpower for the industrial war effort, organizer and coordinator of a vast range of productive undertakings, and controller of a host of economic activities. He has all types of rather unspectacular tasks to perform as well—the back-room jobs, the chores of war. He may lack the glamour that clings to the strategist and the tactician; more probably a big business tycoon than a fighting man, he, no less than they, is an authentic architect of victory.

Enemy Logistics

That a belligerent should interfere with his enemy's logistical effort is to be expected. You try to spoil your enemy's strategic, tactical, and logistical effort. To succeed in doing the last is not only important in itself but is a contribution to success in doing the first and second. It is not a new departure made possible by the coming of the air age. Belligerents have always tried to do it. On land there has been little opportunity for action of this kind, although sabotage by enemy agents has not been unknown, but at sea interference with the enemy's logistics has been a regular practice for generations.

The right to resort to it has been fully recognized in the conventional rules applicable to belligerent conduct. It is the basis of the law of maritime contraband. The effect of the coming of airpower has been merely to extend to an enemy's hinterland the sphere of operational interference which was previously possible only in blue water.

No less important is the development brought about by the variety of war labeled "total," involving as it does the enrollment for war work in some shape or form of a high proportion of the entire population of a belligerent country. The result has been that war on logistics has tended to become something not very far short of war on the entire civilian economy of the enemy. This tendency had already made itself manifest at sea, but it has been in the new domain of the air that it has been especially marked. When professional armies alone were engaged and the number of combatants was comparatively small, it was possible to conduct war on seaborne commerce according to rules which, in effect, exempted from seizure as contraband cargoes which were of no value to the fighting forces. In World War I this practice underwent a significant change. Because Germany, it could be held, had become a nation in arms, the

British Government extended the definition of contraband to cover a wide range of commodities not previously so classified. By their sink-at-sight submarine warfare, the Germans, on their side, abandoned *de facto* the traditional usage of differentiating between the cargoes which were of military utility and those which were not.

Air Action

A comparable development in the conduct of the war against logistics took place in the air. It occurred in World War II, and the counterpart of the unheralded torpedo attack of the first war was the firebomb raid of the second. Each, in its way, marked a stage in the process of the abandonment of the assuagements of the rigors of war in favor of civilians which it had been the hope of the framers of international conventions to establish. The effect of the scattering of masses of incendiary bombs on a crowded center was inevitably to increase greatly the area of devastation caused by a raid, as compared with that caused by high-explosive bombs. The purpose of such blanket attacks was to put out of action the industrial undertakings engaged in war work within the area, but spreading fires are not selective in their action and the main sufferers were people and property having little or no connection with the war effort. There was little military advantage to be gained from this kind of overspilling destruction.

There is not much prospect of belligerents foregoing their right to strike at an enemy's logistics in a future war. The probability is that they will do so more than ever. As John E. Kieffer suggested: "The decisive battle of World War III will be fought against production and war-making potential rather than against men."

There is some hope, however, that the war on logistics will not be conducted in quite the same way in a future war as it was in the last one. It was a wasteful

way, it involved an enormous military effort, much of which might have been saved with better selection of targets, and it was slow to yield results. The Anglo-American air offensive against Germany did not prevent production in that country from increasing up to July 1944. The Germans' attempt to cripple our logistics was still more unrewarding. The big air offensive which they began in August 1940 had the definite aim of creating a crisis of supply in England. Hitler's Directive Number 17 of 1 August 1940, said:

After gaining temporary or local air superiority, air attack will be continued on harbors, paying special attention to food storage depots and particularly food storage depots in London.

At a staff conference on 8-9 January 1941 Hitler directed that:

Attacks on Great Britain must be concentrated on supplies and the armament industry . . . the supplies and ships bringing them must be destroyed. Continued assaults by the Luftwaffe and the navy on imports might lead to victory as early as July or August.

This hope was disappointed. The Luftwaffe's bomb-aiming equipment was too crude, its personnel too inadequately trained in night operations to succeed in identifying and knocking out the targets that really mattered for this purpose. The German strategic offensive was, on the whole, a ham-fisted affair.

Raids on Japan

But the fact is that none of the beligerents' air forces had as yet come to terms with the war on logistics. They were only feeling their way, learning as they went along, and relying on trial and error to give them the requisite experience. The story of what happened in Japan is particularly instructive. The United States Army Air Force in the spring of 1945

mounted a massive offensive designed to destroy Japan's entire industrial potential. It began with a great fire-bomb raid on Tokyo on the night of 9 March 1945 when 15.8 square miles of the city were burned out and nearly 84,000 people lost their lives. It was followed up by similar attacks on Japan's other large cities—Osaka, Kobe, Nagoya, Yokohama, and Kawasaki. Tokyo itself had a total of six heavy raids, and by the end of them the area of devastation had been increased to 56.3 square miles, more than half of the entire city area. Then the airmen turned their attention to the secondary cities, and some of these were more completely devastated than any of the six largest had been. In Toyama the burned-out area came to the fantastic figure of 99.5 percent. A great number had more than 60 percent of their built-up area destroyed.

The raids referred to were fire-bomb raids. The incendiaries used were of several different kinds. In Germany the 4-pound magnesium-thermite bomb had been the bomb most commonly used in the urban attacks, and it was used in Japan also in the devastating raid on Kobe on 16 March 1945.

In Japan, however, the most largely used incendiary was the 6-pound oil bomb, the *M.69*, which was highly effective against light construction. Napalm-filled bombs, *M.47*, were first dropped by the pathfinders to start fires which gave the main formations their aiming points. In Germany a 30-pound oil bomb (benzole and white phosphorus) was used by the Royal Air Force, and the effect of it seems to have made a deep impression upon eyewitnesses of the big fire raids, notably those of the end of July 1943 upon Hamburg and of mid-February 1945 upon Dresden.

The worst of all the incendiary agents dropped on Hamburg, according to Werner Baumbach, was *der Phosphor*.

It flowed like water down the walls of

the houses and could not be extinguished. Many of the people set on fire by the phosphorus bombs screamed in their mortal agony for help, but help there could be none. Whoever approached was enveloped in flames too.

In Dresden the rain of phosphorus bombs and oil bombs left thousands burned to death in the streets, while thousands more lay crushed and buried in the ruins of the dwellings.

Scenes as terrible must have been witnessed in many towns in Japan where the flimsy construction made fire-bombing a particularly destructive kind of bombardment. Industrial Japan was scorched from end to end. Never in modern war have cities been destroyed in such a wholesale way; and it is beyond doubt that the aim of the great offensive was achieved. Japan's war potential was critically damaged. The bombing, coupled with the operations (naval and air) at sea, wounded her mortally, and did so by war on her logistics. The armament factories themselves were but a fraction of the built-up area that went up in flames, but, as the American official history states, so many survivors of the raids had to be evacuated that it was difficult to find labor for the plants that were not wrecked. But, and this is now generally recognized, the way in which the set task was done was a wasteful way and not invariably an effective one. At Hamburg, for instance, the city was almost torn to bits, yet it had recovered 80 percent of its industrial productivity in a few months. Clearly the attack on logistics, for all the sound and fury of it, had no lasting effect here. Attacks of this kind involved the destruction of the greater part of a town in order to destroy the factories therein. Unfortunately, this provided a strong argument, both in Germany and Japan, for those who criticize strategic bombing as being an indiscriminating and inhumane method of warfare. That charge can be rebutted only

where it can be shown to be an unavoidable method, justified by the necessity of war. In some instances the critics would have some ground for replying that the same result could have been achieved if the attack had been concentrated on points other than those which were, in fact, attacked.

Communications as Objectives

What are those points? The answer, so far as Japan is concerned, is given in the authoritative report of the United States Strategic Bombing Survey. They were railways, tunnels, and bridges. If these had been put out of action, the tremendous assault on the towns would have been unnecessary. In all, the United States Air Forces dropped more than 160,000 tons of bombs on Japan's home islands. Attack on her communications would have "strangled" her more easily. As the survey states:

This strangulation would have more effectively and efficiently destroyed the economic structure of the country than individually destroying Japan's cities and factories. It would have reduced Japan to a series of isolated communities, incapable of any sustained industrial production, incapable of moving food from the agricultural areas to the cities, and incapable of rapid large-scale movements of troops and munitions.

And all this, the survey adds, could have been achieved at a cost of 5,200 tons of high-explosive bombs dropped in 650 visual bombing sorties by B-29 bombers.

The survey's conclusion may be challenged by those who remember that the United Nations air forces were unable to disrupt completely the Communists' communications in North Korea. The conditions there, however, were very different from those which would be found in a country that was itself the seat and source of its system of supply and main-

tenance. The Communists in North Korea had their true logistical bases in China and, farther back, in the Soviet Union, and the allies' aircraft were not at liberty to strike at those bases. The Communists' frontline was sustained by a very primitive line of supply, which for that very reason was a difficult line to cut. The troops at the front were provided with food and munitions carried down to them by night on porters' backs; the large, triangular wooden frames upon which the supplies were hoisted allowed enormous loads to be transported in this way by the abundant manpower that was available. An immensely more elaborate system, and one employing train and truck transport, would be required in a major war in Europe.

Railways and Oil Plants

In Europe the vast complex of production and transportation that would be necessary would afford many objectives for an assault on a belligerent's logistics. Some of them would be such that a blow at both production and transportation could be struck in an attack on a single target. An example is a raid on railway workshops or locomotive repair sheds; another is an attack on oil refineries and synthetic oil plants. Oil is the lifeblood of mechanized forces. General Herhadt von Rohden once said that it was because the Allies grasped that truth that they won in 1945. They saw that the essential need was to condemn the Germans to immobility and that the way to achieve this aim was to paralyze the nerve center of Germany's entire strategy—the liquid fuel sources. This would hamstring the Luftwaffe, the navy, and the motorized formations of the army.

By January 1945, according to Chester Wilmot:

Allied airpower had deprived the Wehrmacht of its strategic mobility. The German railways were now moving only one-

third of the traffic which they had been handling 6 months earlier. The great autobahn which stretched unbroken across Germany from the Rhine to the Oder was strategically useless, since there was no gasoline for the large-scale movements of troops by road.

The effect was especially disastrous for the German Air Force. In the last year of the war Generalleutnant Adolf Galland notes that bombers continued to be built until no more gasoline was available for their test flights and they had to be reduced to scrap on the very same airfields on which they had been built. The repercussion upon Germany's problem of home defense against the Allies' bombers was no less serious. After the war Roderick Chisholm interviewed a German fighter ace, Major Schnaufer, who told him that a gasoline shortage had crippled the defense and that in the last phase the maximum fighter effort by night had been limited to about 80 sorties instead of the 200 possible earlier. So it was that the Allies' air forces, by striking at the fuel oil element of German logistics, were able not only to bring about a substantial impairment of the mobility of the German land and sea forces, but also to leave the German Air Force without the means of striking back at the Allies logistics. It was a doubly profitable strategy. It paid both dividend and bonus.

Psychological Bombing

The urban raids, it is true, had and will always have a psychological effect which might not be present to the same extent in attacks on nonurban objectives. War factories are commonly situated in populated centers, and attacks are calculated to have an adverse effect upon the enemy's will to fight as well as upon his power to wage war. Indeed, the very fact that his cities are brought under enemy fire cannot but have a depressing influence on the nation's morale in gen-

eral and affect his prestige. It was to produce such an effect that the Doolittle raid was made on Tokyo on 16 April 1942. The Japanese had been boasting that they were about to carry the war to the United States and to dictate terms of surrender in the White House. They were shocked when the American bombers appeared over Tokyo, but obviously it did not break their will to fight, which remained unbroken for 3 years longer. It was then broken, or seemed to be broken, as the result of two spectacular raids made for their psychological value, but by that time Japan was already in a hopeless position, beaten by land, sea, and air, and with almost all the fight gone out of her. Whether the effect would have been the same when her morale was in a more robust condition is open to question.

Still, there will always be a temptation in these days of superweapons for belligerents to say: "We'll blast the will to fight out of them once and for all. What will strategy, tactics, and logistics matter then? The whole trouble will be settled by one blow." The blow is commonly taken to be one which will send the enemy's capital, with all that is in it, soaring sky-high. The trouble is that the enemy may be thinking along just the same lines. The game is one at which two can play and which no one can win in the end. Belligerents are dwellers in glass houses. They are constrained, whether they like it or not, to keep the golden rule constantly in mind. Kant's categorical imperative has reasserted its force in these later days. It did not save the belligerents' capital cities from being devastated in the last war. It might have saved them if France, ever solicitous for Paris, had remained under arms to the end. The French, as Denis Richards pointed out, so long as they were in the war, opposed any course which could possibly provoke German action against French cities. There were no strategic attacks on cities while France

was a belligerent; the raids on Warsaw and Rotterdam were not strategical but tactical, that is, in support of ground operations. The same fear of retaliation may well save the cities in a future war. The weapons that are or will be available will be of such potency that neither side will be inclined to initiate attacks that would be assuredly replied to and would be disastrous in their effects. There are too many glass houses in Western Europe to make such a prospect one which belligerents who are not bereaved of their senses would welcome.

Logistics as Target

If there is no attempt to snatch a quick victory by what would be, in effect, a political rather than a military decision, or if such an attempt is made but fails, there will be nothing left but to try to win the war by the less spectacular process of upsetting the enemy's three "apple-carts," the strategical, the tactical, and the logistical. The third of these "carts" will assuredly not be left alone, and as its contents are relied upon to replenish any losses from the other two, the upsetting of it will be a matter of serious consequence for the enemy. The effect may be to put the entire trio out of business. The owner may have to shut up shop and go home.

That may be the way in which a future great war will come to an end. Both belligerents may find that they have not the wherewithal to continue it, so enormous will be the expenditure of materials of all kinds, so disastrous the losses before those materials ever reach the fighting line, and the result may be that the war will just fizzle out. The home front, the economic front, may be unable to stand the strain; logistics and not strategy and tactics may be found to be the point at which the break will come. It will come sooner if the nation's nerves of motion are impaired. G. F. Henderson in *The Science of War* said: "War is first

and foremost a matter of movement." He was thinking, no doubt, in terms of strategy and tactics, but his words are also true of logistics.

Getting and Spending

"Getting and spending," Wordsworth wrote in the *Sonnets*, "we lay waste our powers." War, no less than life itself, is getting and spending. The getting is the work of the logistician, the spending of the strategist and the tactician. The getting is of two kinds. First, all that is needed for the war has to be made or procured. Then it is necessary to get the products to the place where they are to be expended. Experience in the last war, as in the west and in the east, shows that it is in this second stage of the logistical process that it can be interfered with most

effectively. Interference may not always be practicable during the first stage; armaments may be manufactured, processed, and assembled underground. When that has been done, however, they must emerge at some time into the light of day so that they can be transported to the spot where they are to be used. It is then that airpower can find its opportunity. It can strike at movement rather than at production. It can interrupt the movement while it is in progress, or it can make the movement difficult or impossible by cutting the line along which it is to take place, or it can wreck the plants which produce the means of the movement. It is thus that a country adequately equipped in the air may hope to lay waste the enemy's logistical potential most easily and decisively in a future war.

The Problem of the West

Digested by the MILITARY REVIEW from an article in the "Australian Army Journal" December 1954.

This article was prepared by a syndicate of students of the 1954 course at the Australian Staff College.—The Editor.

IT HAS been suggested that the present state of tension in the world may be interpreted broadly in two ways. One way is to regard the cold war as a moral struggle between two ways of life, between freedom and tyranny, between good and evil. The other is to consider it a struggle for power between the Soviet Union and the United States with the remainder of the world tending to one side or the other with varying degrees of eagerness or reluctance. In support of the latter case it is sometimes argued that the Soviet Union

would have attempted expansion in Europe and Asia whether the Communists ruled the country or not, and that the United States would have resisted that expansion regardless of the political hue of the USSR's rulers. Those who support this view conclude, therefore, that communism is a secondary, if not irrelevant, issue in the cold war.

This interpretation underestimates the importance of the Communist ideology in the struggle for power. In some countries now under Soviet domination the way was prepared by local groups which claimed adherence to Marxist doctrine. Communist groups throughout the world follow policies laid down in Moscow. The existence of such groups indicates the power of

Marxism. The appeal of that doctrine can lead to disruption, subversion, or to revolution. Under the present circumstances such activity amounts to aid to the USSR.

The first step, therefore, must be to analyze the appeal that communism makes to the Western World and to the countries outside the Soviet bloc.

Appeal of Communism

The Soviet Union claims that her unprecedented rise to power is due to the fundamental truth and virtue of her doctrine. The extent to which the acceptance of Marxism is stimulated by these claims can only be conjectured. Nonetheless, the USSR stands as a concrete example of a state professing to conduct its affairs on Communist principles. The implication is that the first step, at least, toward the classless society envisaged by Marx is a practical possibility. Whether that ultimate goal can ever be reached is also conjectural. Despite their confidence in the final result, the Soviets are willing to admit that the present system operating in their country is but a phase in their development. However, they are quick to point out comparisons favorable to themselves between the living standards under the Bolsheviks and those under the czars, and this despite civil war, invasion, and a generally hostile outside world. The magnitude of the Soviet achievement in industrialization, in the mechanization of agriculture, and in various major capital works cannot be disputed. Moreover, there appears to be no reason to doubt that, given a reasonable period of peace, those standards will greatly improve.

The fact that the USSR is a ruthless dictatorship by Western liberal standards is viewed with equanimity by her admirers. They aver that in the Soviet Union even the dictatorship of the proletariat is necessarily a gradual process; the initial burden of illiteracy, ignorance, and peasant hostility, among other obstructions,

cannot be cast off in a few minutes. The burgeoning of the machine age and the vast works already accomplished are due to the enlightenment of the Kremlin and the power of communism. Communism irrigates the desert, brings flowers to the wilderness, and stands for the life of plenty for every man.

The picture of the USSR as a land of hope and of fulfillment has been delivered to the world by every possible propaganda means. To the unemployed, the undernourished, and the underprivileged of other lands such a picture can exert an attraction. The attraction does not necessarily lead to a desire for emigration to the Soviet Union; the result may be an examination of local conditions in the light of the Marxist critique. The outcome of such an examination is considered further in the following paragraphs.

Moral Appeal

Before Marx the theory of communism was but a series of moral aphorisms. Marx supplied it with a strategy. Lenin and his disciples have turned it into an applied philosophy.

In these words Laski indicates a way in which communism can exert its appeal. There is a streak of utopianism in most men; it is the driving force of most reformers. Whether guided by religious dogma or by mere self-interest, the power of righteous indignation is very great.

Barbara Ward, no fellow traveler, has written:

The Western World is struggling with an irrational and intractable contradiction at the very center of its political system, between the pretensions of a nation state and its inability to meet the reasonable demands made upon it. . . . The traces of economic instability and national conflict at the very heart of the Western system cannot be dismissed as minor blemishes. . . . They are the most effective entry-points for Communist propaganda.

The energy of Western society has unleashed nationalism, science, and industrialism in the world, and has not yet succeeded in bringing those forces under rational control. Some effects of this failure will be considered later; for the present it is sufficient to observe that the honest reformer as well as the habitual malcontent will not be short of reasons for complaint. In consequence, either may be tempted to compare the practices of his society with the precepts of communism.

Communism is more than a mere political program. It is a philosophy and a creed. To those whose faith in older creeds has been shaken or shattered by rationalism, the new beliefs may be attracted as by a vacuum. It may be significant that in Catholic France and Italy the percentage of Communist votes recorded in recent years has been about 25 percent of the poll.

Ideological Appeal

The philosophical basis of revolutionary communism is materialism combined by Marx with the dialectical and relativist rationalism of Hegel. Materialism was a revolt against Christianity and against a metaphysical idealism which believed in spiritual values and pure ideas as the ultimate reality behind the material universe. Politically, it attacked the privileged classes on the ground that their solicitude for men's souls formed a convenient pretext for neglecting the requirements of underprivileged men's bodies. The Marxist variation teaches that the ultimate reality is material and, above all, economic.

The primacy of economics in Marxist theory and the great importance placed upon economic studies in modern life may be coincidental. But it cannot be doubted that the material standards of living of the masses and the economic foundations of the social order occupy a prominent place in contemporary life and thought. Marx's acute awareness of the implica-

tions of industrialism and the thought contained in the statements of Barbara Ward quoted above may make an interesting comparison to the seeker after knowledge or to our newly awakened rationalist.

From the concept of the class struggle, together with the recognition of the essentially dynamic nature of social phenomena, Marx deduced that history is the key to reality. This led to the doctrine of the inevitability of socialism. This idea combined with the opinions of prominent non-Communist economists that capitalism must decay because of its intrinsic contradictions provides a powerful weapon for Communist proselytizers. If economics has a profound effect upon the life of the West in modern times, and if the economic position of the West is founded on capitalism, and if capitalism is doomed, and if socialism is inevitable, where does the West go from here? Such might be the discourse offered our earnest student by a dialectical comrade.

The relativist element in revolutionary communism is ideologically the most destructive Marxist weapon. By removing all absolute values and making everything relative to a given stage in the historical process, the actual foundations of liberal democracy can be dissolved. The relativist view of history has gained wide recognition in modern times even among non-Communists. E. H. Carr has said:

By (this view) the reason of the individual can have no independent validity. His thinking is conditioned by his social situation, and that situation in turn is determined by the stage reached in the historical process.

Accordingly, the sanctity of the individual personality fades and the welfare of the class assumes its place.

Liberty and equality are revealed as mutually exclusive and the only practical proposition in the triumvirate of ideals

is fraternity. The universality of the Communist appeal is derived perhaps from this source, the tenet of the brotherhood of man. An appeal based on such a basic Christian ideal, an appeal for the fraternal partnership of the working people of all nations, may explain, to some extent, the willingness of Communist groups in the Western World to abandon patriotism and similar loyalties. Also implicit here is the moral principle of nondiscrimination on the grounds of race, creed, or color.

Political Appeal

Lenin has said:

Proletarian democracy is a million times more democratic than any bourgeois democracy; the Soviet power is a million times more democratic than the most democratic bourgeois republic. . . . The Soviet system is the maximum of democracy for the workers and peasants; at the same time, it means a break with bourgeois democracy and the rise of a new universal-historical type of democracy, namely, proletarian democracy or the dictatorship of the proletariat.

It is a mistake to condemn these statements as mere propaganda. They show that the Communists recognize degrees of democracy. They do not despise democracy; they claim to have the only genuine variety. The distinction to be drawn is the difference between political democracy and social democracy.

The challenge which Soviet democracy presents to the West is a challenge to complete the unfinished revolution of Cromwell in England and Robespierre in France.

The Communist argument is that democracy in Capitalist countries is, in the final analysis, democracy for only the propertied classes. To the Communist the antithesis to democracy is plutocracy or

aristocracy, not dictatorship, as many in the West are apt to consider. In the "century of the common man" it is possible for alien interpretations of these loose terms to creep in unsuspected.

Under the political heading it is convenient to consider nationalism even though that subject might well have been treated under different heads. It is not intended to deal with European nationalism despite the interesting trend toward "supernational" authorities and talk of federation. The principal concern here is with the rapid rise recent years have seen in movements for national sovereignty and self-determination in Asia and Africa.

In the face of these movements the colonial powers have been compelled to withdraw, more so in Asia than in Africa. It is difficult to establish the extent to which Communist ideas are responsible for these awakenings. But it is easy to see the use communism may make of them.

For these peoples who have achieved independence from the West and for those who sooner or later will wish to follow their example, the words "imperialism" and "colonialism" are anathema. It is significant that in all cases there is little industrial development, agricultural methods are primitive, and wide extremes of social and economic inequality exist. None of these countries has been reared in the liberal democratic traditions of the West, so that democracy of any kind is little more than an academic expression. The masses aspire to release from poverty and hope that their independence will bring it. To date it has been convenient to hold the colonial powers responsible for their penury. The inexperience of governments and the lack of trained administrators are now important factors. If the aspirations of the masses are not satisfied, at least to some extent, the appeal of communism, carried, perhaps, by intellectuals trained in Europe may sway their countrymen to further experiment.

Economic Appeal

The idea of the welfare state and the policy of full employment are comparatively recent innovations to the West. As avowed governmental policies they illustrate the modern realization of the dependence of the individual upon the adequacy of the state to foresee and prevent economic instability and personal insecurity. Critics of these policies claim that by them individual initiative is sapped; advocates claim that the citizen requires these assurances and that it is a recognition of the modern trend to mass civilization. The Communist interpretation which might be offered is that these concessions on the part of Western governments are not so much in the line of liberal democracy as unwilling expedients to bolster a failing cause.

In preceding paragraphs mention was made of irrational elements in the economic system of the West. The trade cycle, the alternation of boom and depression in, roughly, 10-year periods, is one such element. It is only in relatively recent years that economists have made any claim to understanding the causes of this cycle. The effects are, however, well-known. These effects constitute one of the most powerful weapons of communism.

From economic instability stems fear of unemployment. When unemployment is widespread and the reasons for the recession are not apparent, or are incomprehensible, communism gains strength. Because of the far-reaching effects of fluctuations in the economy of the United States, resentment readily arises against that country in these circumstances.

In the foregoing paragraphs no attempt has been made to argue the case against communism. On the other hand, it has not been possible to do more than suggest some of the ways in which communism exerts its appeal. This appeal is not only to idealists, psychopaths, and would-be dictators; it may touch a responsive chord

in many of those who consider either themselves or others underprivileged or improperly neglected. As such people constitute a considerable proportion of the world's population, the task of countering communism is a considerable one. The task is made more difficult by the validity of some Communist criticism of Western democracy.

Marx's strength lay in what he attacked, not in what he promised.

Summary

It would be presumptuous to suggest that there is an easy way to combat communism. As suggested here, the Communist appeal is most complex, affecting, as it does, every aspect of our way of life. But before examining the problem further, one point should be made clear.

Earlier, a distinction was drawn between the moral and power politics interpretations of the cold war. At this juncture it appears desirable again to clarify our purpose. If communism is taken to mean the USSR, then the principal aim of our policy is political. If it is taken to mean Marxist ideals, then the moral aim is predominant. At times these aims may appear to clash. For example, the assistance given to Yugoslavia, an avowed Communist state in the Marxist sense, is a political action. To ensure clear thinking it is necessary to keep firmly in mind the particular aim in a specific situation. However, it is true that considerable confusion does arise from misunderstanding of aims.

To halt expansion either directly by the Soviet Union or indirectly through her associates the immediate political policy must be one of containment. Militarily, the West holds the advantage on paper, although far greater Communist forces are deployed at present. It is, therefore, necessary to increase the standing forces of the West, both in Europe and around the perimeter covering the heartland of the Soviet Union. It is not possible to de-

fend this entire perimeter, so that the establishment of highly mobile reserves in places of strategic importance may be necessary. Partial mobilization may be required. In furtherance of this defensive policy, regional pacts of collective security such as NATO and SEATO may prove advantageous. In the latter case the full and willing cooperation of independent Asian countries appears to be necessary.

Containment in the military sense is a negative policy. More positive is the attempt to remove the poverty and other difficulties of underdeveloped countries by financial and technical aid. In this way the breeding grounds of communism may be destroyed. No one can pretend that this is a short-term policy. It requires large capital investments and loans, educational and training assistance, and the provision of machinery for industry and agriculture. In short, spectacular developments are required if the political aim is to be achieved.

A shorter-term policy and one requiring immediate attention is the provision of adequate food and employment for these peoples. It is desirable from every angle that such aid is rapidly followed by the establishment of sound trade relations with the peoples of these underdeveloped countries. By trade, the national pride of newly independent countries is not affronted and the burden to assisting nations' economies is reduced.

There is no less a problem with many of the developed countries, especially in Europe. The economic situation of the West generally is so dependent on stability in the United States that international agreements to eliminate the fluctuations of the trade cycle must be arranged. Governments must ensure their own stability so far as it lies within their power. If this requires the acceptance of the principle of "planning" in economic matters, then

that particular principle must be accepted.

The counter to the appeal of communism, arising from the picture of the Soviet Union as a land of hope and opportunity, is necessary more in the tired and dispirited countries of the Old World than in the young democracies. In France the importance of full employment and balanced trade accounts cannot be overstressed. It is within the power of the other Western countries to arrange this.

The distrust and suspicion existing between the nations is a strong deterrent to harmonious action. In this regard the existence of international bodies such as the United Nations provides something like a safety valve. But more is obviously required. If most distrust arises out of fear for national security, then security must be ensured. In the short run this may mean military measures. In the long view the wider interest may demand the abandonment of restrictive national sentiment.

The ideological pressure of communism may well compel modification to our social and economic system before such changes would have occurred in the evolutionary process. How to achieve this while still maintaining the elements of individualism considered essential to our way of life is an urgent problem for the best brains available to the West, for the moral issues involved call for the illumination of our ideals and a fervor for their achievement or pursuit.

In this struggle for the hearts and minds of men all of our moral and material resources are required. If coexistence with the Soviet bloc is to be achieved—and this is vital if suicide is to be avoided—then the West must win the willing cooperation of the rest of the world. It can do this by demonstrating that it offers a better, fuller, richer way of life than communism.

BOOKS OF INTEREST TO THE MILITARY READER

THE WHITE KEPI. A Casual History of the French Foreign Legion. By Walter Kanitz. 364 Pages. Henry Regnery Co., Chicago, Ill. \$5.00.

By MAJ KENNETH S. FIELD, *Arty*

Does service with the French Foreign Legion lead to the Legion of Honor, or as once stated by an unknown legionnaire, "to suffering and misery and sickness, to a nameless grave in the hot sands of Africa"? Does an old motto of the legion, "Some soldiers know how to fight—the legionnaire knows how to die," still hold true? These are typical questions which Mr. Kanitz contends have been unsatisfactorily answered in past writings about the Foreign Legion. The author feels that the public has received a pitifully distorted picture of the history of the Army of Phantoms, as the legion once was called.

Mr. Kanitz served in the legion throughout World War II and, judging by the variety of interesting quotations used in the book, has done a vast amount of research in this field. This is a *casual* history of the Foreign Legion; casual, in this instance, means that the book is more of a treatise on the life of the legionnaire rather than a chronological accounting of the legion's exploits.

The book reads easily and has a ring of authenticity. Although the reader may be left in doubt as to the life of a soldier in the present-day legion, this presentation should be of interest to military readers.

THE WEST OF PHILIP ST. GEORGE COOKE, 1809-1895. By Otis E. Young. 393 Pages. The Arthur H. Clark Co., Glendale, Calif. \$10.00.

By MAJ PAUL F. WACHHOLZ, *Arty*

This is a well-documented biography of an almost forgotten Army leader whose life spanned most of the nineteenth century, in which the United States developed from a shaky, young Atlantic federation to a mighty Nation spanning our continent. The sweep of the country's events and the surge of its dynamic forces are related to the military career and life of Philip St. George Cooke.

For almost a half century he served his country and our Army faithfully and well. His personal tragedy was that he was unable to adapt the professional know-how and characteristics of the leader of the far-ranging, independent cavalry unit of the plains and deserts of the West to the coastal theater of war and politics of the Civil War. He was instrumental in developing the tactics, founding the traditions, and in adding an intellectual yeast to the combat arm—the United States Cavalry. His military career ended in relative oblivion, overshadowed by the fame of his son-in-law, J. E. B. Stuart, and of his apt pupils, Wilson and Merritt. The book is well worth reading by the military student for its grasp of the history of our Army in the West, and for a thoughtful consideration of the lessons of military leadership it presents.

MIRACLE OF WORLD WAR II. How American Industry Made Victory Possible. By Francis Walton. 575 Pages. The Macmillan Co., New York. \$7.50.

BY LT COL CARL H. WOHLFEIL, *Arty*

Statistics are seldom exciting except, perhaps, to a statistician. Mr. Walton, however, comes as close as possible in putting life and meaning and vivid interest into the facts and figures with which he proves his point that American industry made victory possible in World War II.

There is an evident bias in his report. It is the same bias that a soldier puts in his chronicle of his unit history, but it does make interesting reading. The author jabs a sharply pointed finger at the "politicians" and the "military" for many of the mistakes, oversights, and frustrations that badgered his industrial heroes.

The author calls his work a "chronicle of the trials, tribulations, and triumphs of the often maligned, certainly little understood, American assembly line—it is a success story of the American people in action." There is no doubt that American industry needs no apologist for the part it played in winning the war. The results were evident in every nation, allied or enemy, that took part in the great struggle. How this all came about is the burden of Mr. Walton's story, *Miracle of World War II*. He clearly defines what must be done now to prevent those problems from fouling up the works if there is a "next time."

This is excellent background reading for all officers interested in the management aspects of big business in war and its relationship to military procurement and production.

SIX YEARS OF WAR. The Army in Canada, Britain and the Pacific. Official History of the Canadian Army in the Second World War. Volume 1. By Colonel C. P. Stacey. 629 Pages. Edmond Cloutier, Ottawa, Canada. \$3.50.

FIFTEEN DECISIVE BATTLES OF THE WORLD. By Sir Edward S. Creasy. 471 Pages. The Military Service Publishing Co., Harrisburg, Pa. \$3.50.

BY LT COL WILLIAM D. MCDOWELL, *Inf*

This is a revised edition of the author's original work published approximately a century ago and covers the battles which shaped the world from Marathon to Waterloo. The author's original style has been modernized to make the book easier reading for the present-day individual. It is an excellent presentation of the battles selected showing how they developed, the actual fighting, and the results. This is a very fine book for the student of military history or for the individual who would like to read about the development of world empires.

WORLD COMMERCE AND GOVERNMENTS. By W. S. Woytinsky and E. S. Woytinsky. 907 Pages. The Twentieth Century Fund, New York. \$10.00.

BY MAJ JOHN J. EARLEY, *Inf*

This book is a companion volume to *World Population and Production* and examines patterns of trade—and the systems of transportation that feed them and the government under which they exist—as they now operate throughout the world. All phases of the vast network of transportation by air, land, and sea within and between nations is minutely examined. The governments which make up the world and the agencies which operate under them are examined in detail. This volume provides excellent research material for one interested in these fields.

CRESCENT AND GREEN. A Miscellany of Writings on Pakistan. 170 Pages. The Philosophical Library, Inc., New York. \$4.75.

WAR OF WITS. The Anatomy of Espionage and Intelligence. By Ladislav Farago. 379 Pages. Funk and Wagnalls, New York. \$5.00.

ZOOMIES, SUBS AND ZEROS. By Vice Admiral Charles A. Lockwood, United States Navy, Retired and Colonel Hans Christian Adamson, United States Air Force, Retired. 301 Pages. Greenberg Publishers, Inc., New York. \$3.95.

BY CAPT RALPH J. BAUM, *USN*

This is another story of the activity of our submarines in the Pacific Ocean area during World War II. It is different in that the submarine is not portrayed in its usual role of a destroyer of ships and personnel, but as a lifeguard and saver of aviation personnel of the Navy and Army Air Force. This lifeguard service of the submarines, in addition to saving the lives of hundreds of our aviators, raised the morale of our flying forces as they soon learned that they had a chance to be picked up even if they had to ditch their planes within sight of the Japanese homeland.

Zoomies, Subs and Zeros is a series of stories telling how the lifeguard service originated, its difficulties during development, and the spectacular successes it had before the war ended. It gives the reader a different view on the capabilities of the submarine and is told by the man who organized and directed the submarine force in the Pacific from early 1943 to the end of the war.

ROCKETS AND GUIDED MISSILES. By John Humphries. 229 Pages. The Macmillan Co., New York. \$6.00.

BY LT COL JOHN P. SHEFFEY, *Armor*

C-stoff, monopropellant, cut-off, beam rider, escape velocity, specific thrust pounds per unit volume per second, orbital course—these are only a few of the everyday terms of the rocket age. The author has translated into very understandable terms the background and current developments of rockets and guided missiles. As a scholar and research engineer he is well-suited to give the layman a practical knowledge of the capabilities, limitations,

and outstanding problems of missile propulsion. By generous use of drawings, charts, tables, and photographs he covers the functioning of all the unclassified rocket motors and fuels that are in use today. He touches upon storage and transport problems and very briefly discusses guidance systems.

Mr. Humphries devotes one chapter to the fantastic problems of space flight and nuclear propulsion. How will man control temperatures and pressures which will destroy all known substances without a flow of cooling air? How will man escape earth's gravity when it requires 50,000 pounds of stepped rockets to put a 100-pound object beyond the pull of gravity using known propellants? How will he reenter the earth's atmosphere and live when it requires as much power to decelerate him as it took to launch him?

The value of this book to the military man is quite clear. Just as today's military leader needs a general knowledge of the functioning, capabilities, and limitations of tanks, trucks, aircraft, radios, machineguns, and scores of other items of his arsenal, he also needs some knowledge of rockets and missiles. Today, and more certainly tomorrow, he must be prepared to make decisions concerning them. *Rockets and Guided Missiles* is an excellent base upon which to build detailed knowledge of specific weapons.

THE OFFICER'S GUIDE. 545 Pages. The Military Service Publishing Co., Harrisburg, Pa. \$5.00.

BY LT COL ROBERT M. WALKER, *Arty*

This is the Silver Anniversary edition of the publication which is an excellent encyclopedia of current information for Army officers, their wives and family, and for officer trainees. While it is in no way official, it is authoritative and reliable and presents the "what" and "how" of many questions. This book is an excellent guide for all officers.

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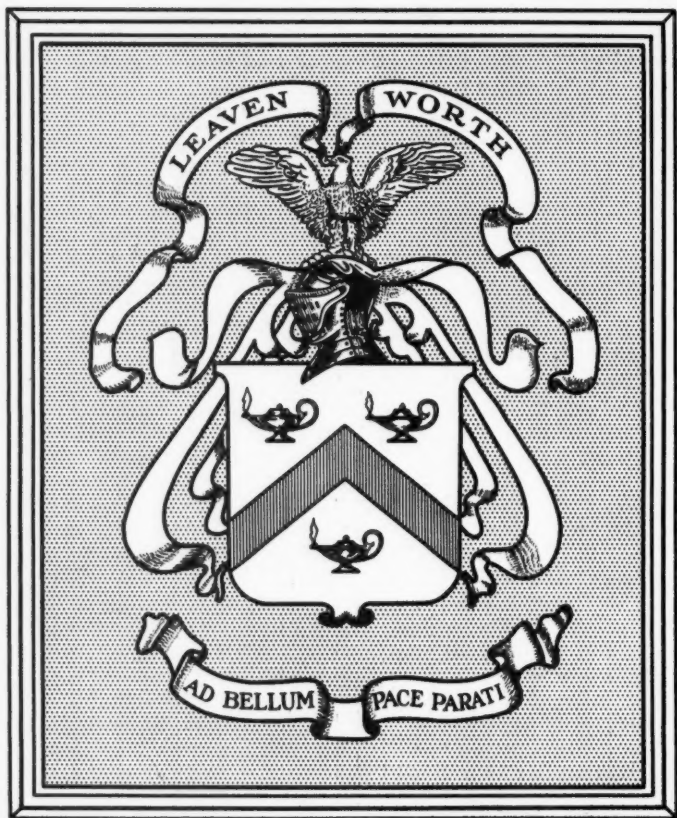
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